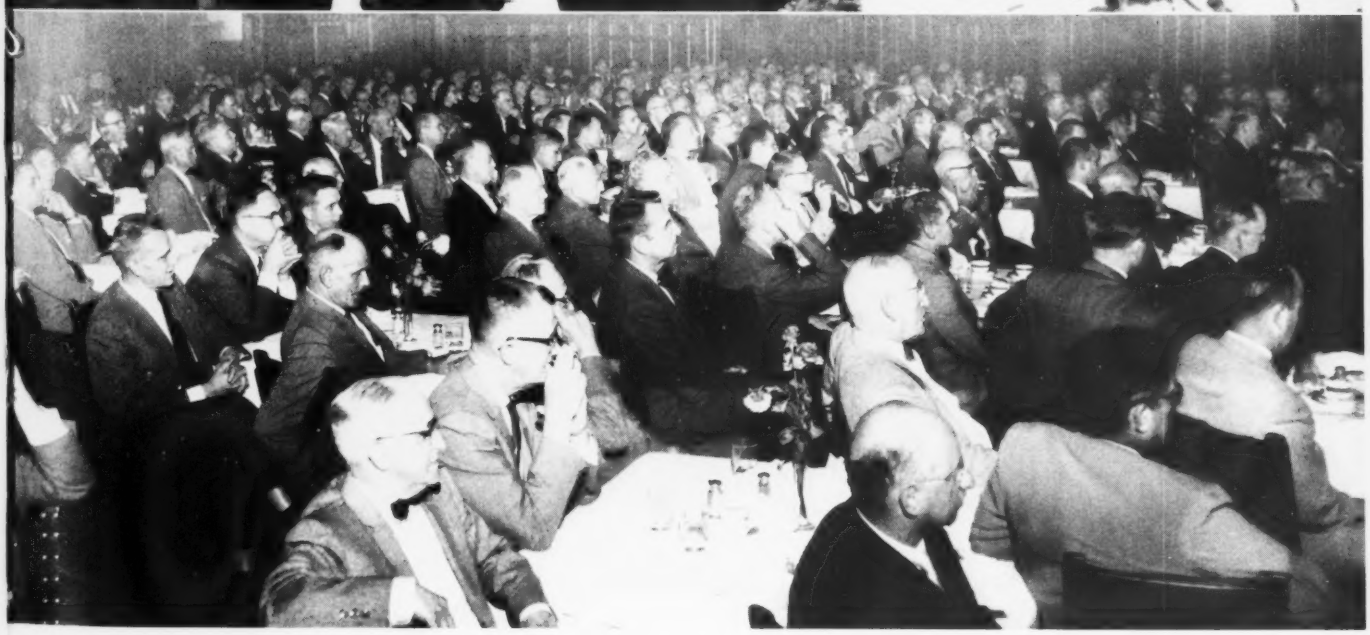
CONNECTICUT
INDUSTRY
NOVEMBER • 1957



OPERATION ANNUAL MEETING AND CONFERENCE Page 14

From sales to shipping . . .

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The punched tape of teletypewriter service has become today's high-speed link between sales offices, company headquarters, factories and shipping points. Order-handling is now virtually automatic — almost as fast as if the warehouse were next door to the point of sale.

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"Working Together To Bring People Together"

THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY

CONNECTICUT
INDUSTRY

NOVEMBER • 1957
VOLUME 35 NUMBER 11

THIS MONTH'S cover is a photo—montage of a number of speakers and guests who attended the evening session of the Annual Meeting at Yale Dining Hall, September 10, 1957.

In This Issue

	Page
Editorial	5
Flying Shears by Hallden	6
Air Age In the Show Window	8
Communications Break-Through	10
The Way Industry Rates the States	12
Operation Annual Meeting and Conference	14
News Forum	33
How Would You Decide?	49
Transportation	51
Public Relations	63
Accounting Hints	65
Spotlight on the Future	67
Business Tips	69
It's Made In Connecticut	70
Advertising Index	84

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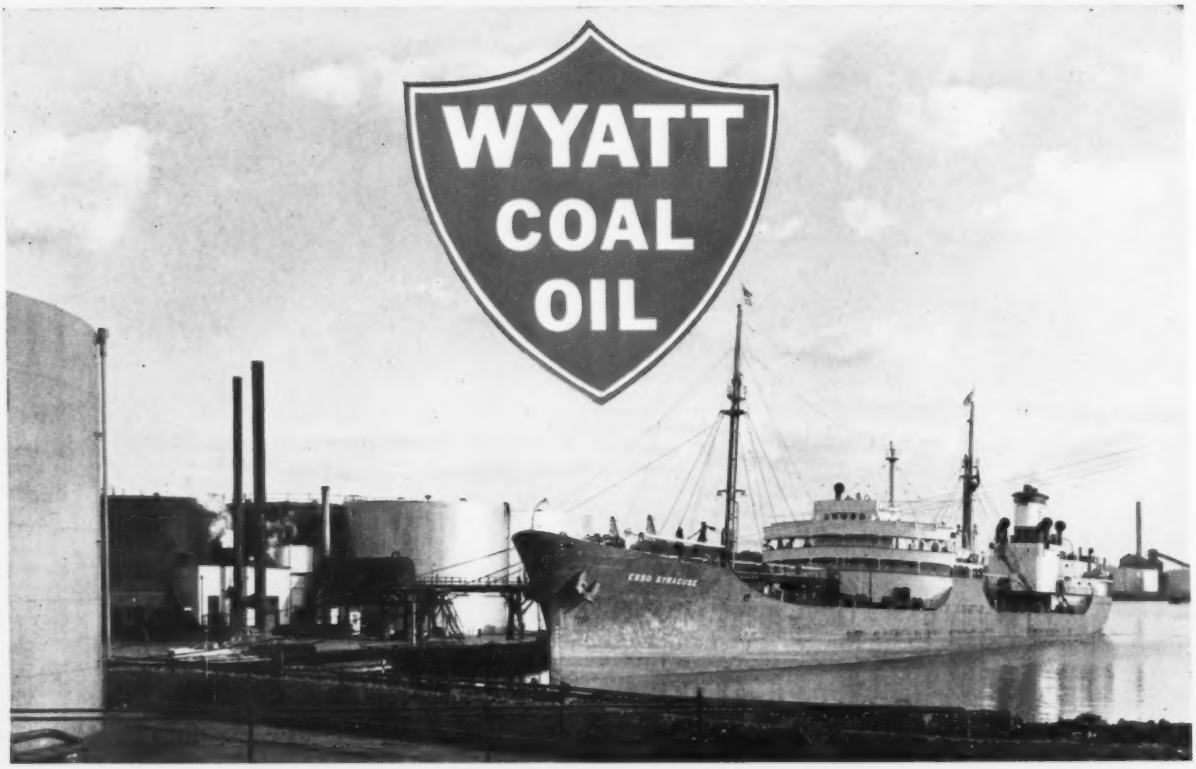

A RECENT ESSO TANKER ARRIVAL AT WYATT'S NEW HAVEN TERMINAL

The "Esso Syracuse" is 547 feet long, has a 70 foot beam and draws 30 feet of water. It took 5 days for the 1820 mile trip from Aruba, N.W.I. to New Haven and its average speed was approximately 15 knots. This tanker discharged 5,000,000 gallons of Bunker "C" on this trip.

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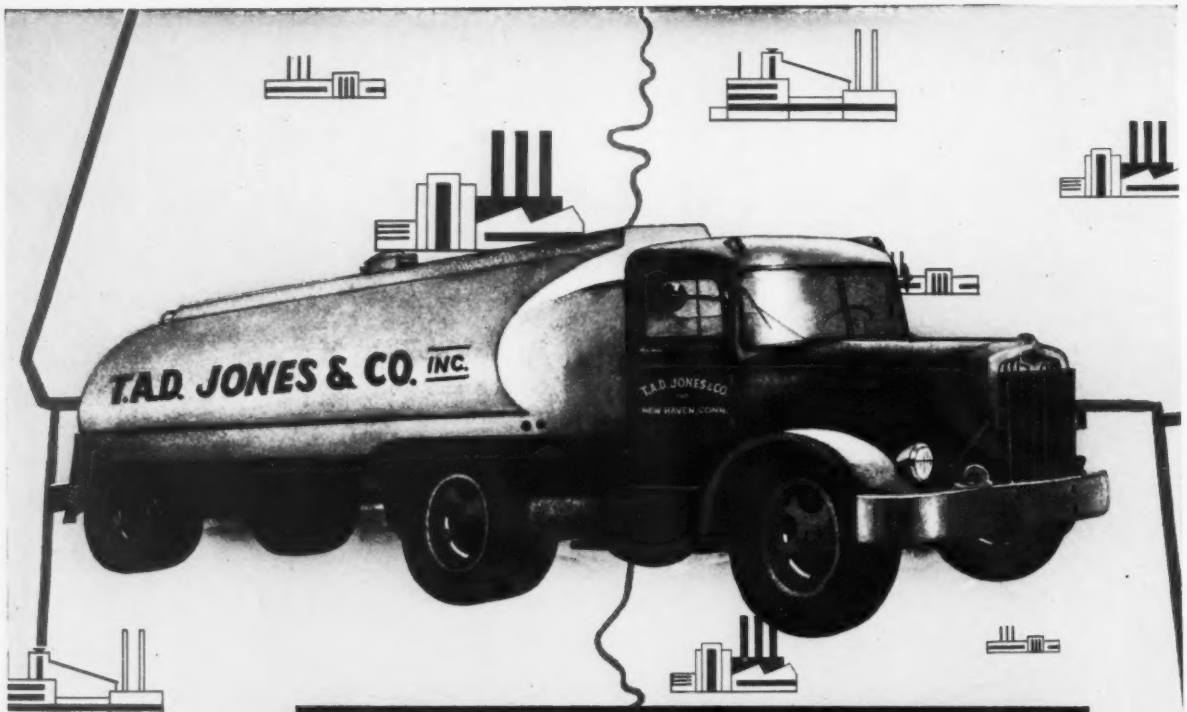

ALL OVER THE MAP!

For thirty years, T.A.D. Jones delivery-trucks have been rolling over the highways of Connecticut and Massachusetts, bringing a prompt and dependable fuel-service to the tanks and bunkers of southern New England's industry. While not so conspicuously marked as to source, the volume of our barge- and rail-deliveries has been equally important to this area.

After nearly a generation of such usefulness, T.A.D. JONES & COMPANY is naturally equipped to maintain and enhance its name for serviceability. Today our bulk storage of Bunker "C" Fuel Oil, Bituminous and Anthracite is among the most extensive in New England, like our facilities for delivery. ... And they are all as handy to you as your telephone!

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After hours: New Haven HObart 7-2533 for Coal, Hobart 7-0765 for Oil

You Can Help To Reform Taxes

By HARRISON FULLER, *President*
Manufacturers Association of Connecticut

♦ EVERY businessman, large or small, is painfully aware of the tight checkrein on plant expansion created by the very high federal income tax rates, both individual and corporate. New or growing businesses are most severely hampered by the steeply graduated individual tax rates, which start after only $2,000 of taxable income, reach 30% at the $6,000–$8,000 bracket, 50% at the $16,000–$18,000 level, and go on up to a top rate of 91%. Those who run their business under the corporate form have the additional problem of the corporate tax, especially the combined tax rate of 52% which applies to income over $25,000. Faced with the severe financial handicap of tax rates of this magnitude, it is not surprising that a small businessman experiences a feeling of frustration when he tackles the problem of raising the necessary capital to modernize or expand his plant, or even to keep it in good operating condition.

There is no need to labor the point. We are all aware of the gravity of the situation. The problem has been: What can an individual businessman do about it? The answer to that question was given by Congressman Antoni N. Sadlak of Connecticut last March 28, when he introduced in the House of Representatives a bill (H.R. 6452), which is designed to reform the income tax rate structure by a remarkably fresh and logical method. We believe that the Sadlak proposal merits the serious consideration and endorsement of all taxpayers, particularly those in the business community.

Recognizing the growing feeling throughout the country that there is something fundamentally wrong with a tax structure which penalizes hard work, risk taking and achievement, Congressman Sadlak in his bill proposes to do something constructive about the situation. The Sadlak bill schedules annual reductions of individual income tax rates in each bracket, and of the corporate income tax, over a period of five years, beginning January 1, 1958. The legislation provides coordinated reductions in all the progressive rates of the individual tax, with the first bracket rate being reduced from 20% to 15%. The top rates of tax would be brought down to 42%, the individual tax from its present top of 91%, and the corporate tax from its present top of 52%. Here are some specific examples of individual tax rate reductions over the five years: $4,000–$6,000 bracket, from 26% to 17%; $8,000–$10,000 bracket, from 34% to 19%; $12,000–$14,000 bracket, from 43% to 21%; $16,000–$18,000 bracket, from 50% to 23%; and $20,000–$27,000 bracket, from 56% to 25%.

Granting the merits of this all-embracing proposal for tax reform, the question immediately occurs, how can so much revenue be taken away from the federal government without interfering with the defense and other essential government programs? Mr. Sadlak answers this question with facts and figures. He points out that each year the normal economic growth of the country produces more tax revenue without rate increases. For example, under existing tax rates, budget revenues of the federal government have grown from $59.4 billion in the fiscal year 1955 to an estimated $70.6 billion in the fiscal year 1957, or a net gain of more than $11 billion. Some of this gain reflects the impact of inflation on revenues, but the major part of it has resulted from economic growth itself.

If the economy grows in step with the recent historic average, the revenue growth should average up to $4 billion a year without inflation. On the other hand, the estimated individual tax savings under the Sadlak bill, based on 1956 income levels, would be $10.6 billion and the total corporate tax savings would be about $4.2 billion. Based on 1956 income levels, it would take annual revenue growth of only about $3 billion a year to accomplish the scheduled rate reductions without net revenue loss to the Treasury. Thus, the Sadlak proposal could be put into full operation and still leave a margin of about $1 billion additional government revenues even with the reduced tax rates. As Congressman Sadlak puts it: "Assuming a continuance of prosperity and economic growth, it is reasonable to expect that the scheduled reductions would be fully realized without net revenue loss to the federal government, probably with some net gain."

Another thoughtful provision of the Sadlak bill is a procedure by which a scheduled rate reduction could be postponed if permitting it to go into effect would cause an imbalance in the federal budget. However, the bill provides that each scheduled reduction may be postponed for only one year, and that subsequent scheduled reductions must come within two years of each other. Thus, the tax reductions scheduled in the bill must become fully effective within a maximum period of nine years in the event that budget conditions require full resort to the postponement procedures.

This ingenious feature of Mr. Sadlak's proposal will mean that each year in Congress there will be real and equal competition between the forward scheduling of tax reductions and proposals calling for increased government spending. Mr. Sadlak puts it this way: "My bill provides a focal point for the expression of taxpayer interest in using revenue growth to reduce excessive income tax rates instead of to support increased government spending. I feel certain that many taxpayers, both individually and through various groups to which they belong, will express their views on this legislation to their representatives in government."

The Sadlak bill should by no means be written off as being a Utopian solution which Congress will not accept. Mr. Sadlak is a member of the powerful tax-writing House Ways and Means Committee. Last August, Representative A. S. Herlong, Jr. of Florida, a Democratic member of the Ways and Means Committee, introduced an identical bill, so that the proposal has bipartisan support. Other powerful members of the Committee are believed to be sympathetic to the proposal.

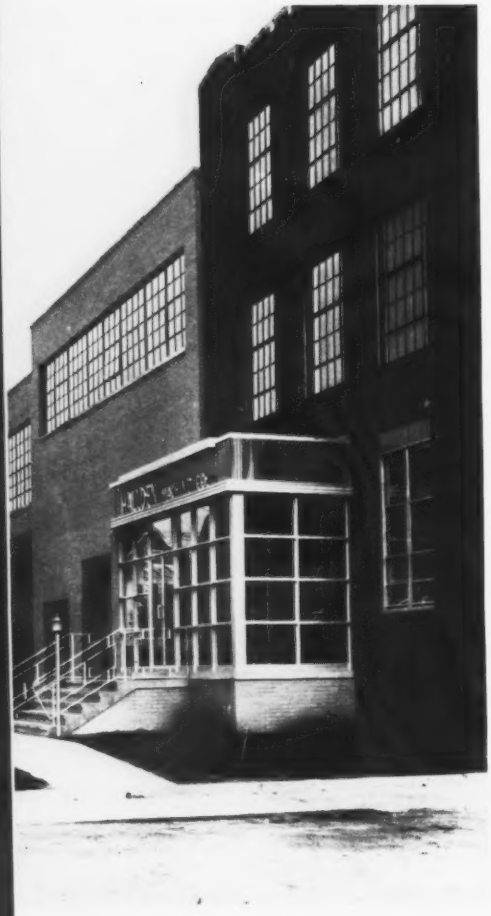
What can you do to help? You can, if you will, appear before the Committee and support the Sadlak bill. Requests to testify should be sent to the Clerk, Committee on Ways and Means, Room 1102, New House Office Building, Washington 25, D. C. as soon as possible but not later than December 2, 1957. Requests to testify should generally outline the subject matter of the proposed testimony as well as the time needed to present it. Written statements of proposed testimony should be submitted to the Clerk, in fifty copies, not later than December 15, 1957, and at least seventy-five additional copies should be made available for the press by the witness when he appears.

If you do not wish to appear personally before the Committee but would like to have your statement included in the printed record of the hearing, simply send fifty copies of your statement to the Clerk, not later than December 15, 1957.

In any event, it is extremely important for anyone who is in favor of the Sadlak bill to advise Mr. Sadlak, Senators Bush and Purtell and the Representative from his district, of his views. This is indeed a critical time for everyone interested in tax reform to act.

THE HALLDEN ENGINEERING LABORATORY ON THE TRINITY COLLEGE CAMPUS.

FLYING SHEARS by Hallden



A VIEW OF THE HALLDEN MACHINE COMPANY PLANT AND OFFICE IN THOMASTON.

■ THE automatic toaster is said to have prevented many a temper tantrum at the typically American breakfast table.

No matter how many morning cobwebs breed forgetfulness that is certain to lead to burnt toast for breakfast, the automatic toaster takes over the job of adjusting its ways to the bread. This "brain built into a product" reflects the contribution of various businesses to one machine. Although it is easy to see the parts played by the electrical, steel, bakelite and wire industries in creating this temper-saving device—the automatic toaster—no layman without firsthand knowledge of its capabilities would even guess the important part that was played in the production of the toaster by the "flying shear." Yet the metal housing to the toaster could not be produced so rapidly and so cheaply without the use of the "flying shear." This shear is definitely related to the consumer world of cars, cooking utensils, cans and many other items, for without its uncanny ability to cut up metal at high speeds, the cost of many of our consumer items would be prohibitive to thousands of today's users.

Even stranger than the important relationship of these giant "flying shears" to the automatic toaster and numerous other consumer items is the fact that they have been developed primarily by one company—The Hallden Machine Company of Thomaston, Connecticut, and Karl William Hallden, its founder, is largely responsible for this outstanding record.

This year The Hallden Machine Company, celebrates its 41st year of continuous production of guillotine and synchronized rotary shears.

To steel, brass, and aluminum factories the flying shears have been the answer to the challenge of accurate high-speed cutting of strip metal and as such they have played their part in the ever increasing productivity of this century.

Karl William Hallden, 73-year-old inventor-president of The Hallden Machine Co., and life-trustee of Trinity College, Hartford, is the man responsible for the development of the modern, high-speed cutting machines, known as "flying shears" first devised by Victor Edwards in 1897.

Mr. Hallden originally from Halmstad, Sweden graduated in 1909 from Trinity College in Hartford, and is holder of honorary masters' and doctors' degrees from the school. Upon graduating he became assistant chief engineer for the Plume & Atwood Mfg. Company and later was chief engineer for the Seymour Mfg. Company until 1915 when he moved to open his own business.

Starting out with his own company in 1916 Karl Hallden manufactured tube-cutting machinery, catering to the brass industry located in the Naugatuck Valley. The plant, steadily increasing in size, moved to Thomaston in 1930 and had its first addition in 1937, with the second and third additions being made in 1941-42. Another small wing was constructed in 1951. Two years ago the company launched a major, two-step expansion program until now it boasts floor space of 60,000 square feet.

Out of the beginning of tube-cutting machinery evolved the automatic shear which is now manufactured at the present site in Thomaston.

Holding more than 50 patents on guillotine and synchronized rotary shears, and through constant improvement in design and production, the Hallden Company has risen above

virtually all competition, supplying 80% of the shears used in the industries in the United States and Europe.

The Company has continued to build up its machinery, engineering and production facilities to the extent of being, for all practical purposes, recognized as the largest, single manufacturer of guillotine and synchronized rotary shears.

The machines themselves are massive assemblages of many moving parts, each designed for one particular application, as each machine manufactured at Hallden is custom built to customer specifications.

These machines capable of automatically cutting strip metals on a continuous basis make possible the mass production of airplanes, automobiles, appliances and even the household's kitchen utensils.

Weighing from 25,000 to 300,000 pounds, these giant shears are able to cut metals at the rate of 200 feet to 1000 feet per minute. These specialized metal-cutting machines are shipped to all parts of the United States, Europe, Spain, Japan and South America, wherever there is a concentration of steel, brass or aluminum industry.

The Hallden Company has operated continuously for the past 41 years except for 2 months in 1955 when the raging waters of the August flood interrupted production and turned their newly completed assembly room into a shambles of debris, mud and silt. But with a determined effort and working hand in hand with the manufacturers of the machinery they employ in their production they were back in operation within 2 months.

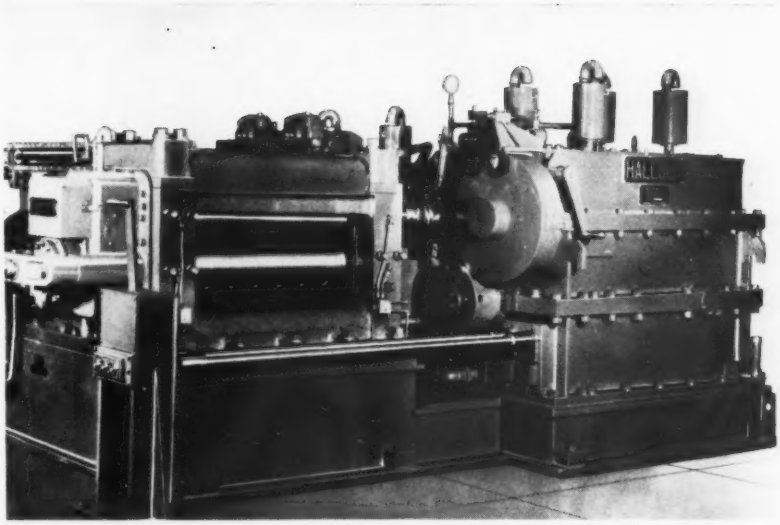
Mr. Hallden, who is very active in educational activities and particularly concerned with mechanical and electrical engineering, has created the Hallden Chair of Engineering and the establishment of the Hallden Engineering Laboratory and technical facilities at Trinity College in Hartford. Just recently he has authorized another $100,000 addition to this laboratory.

To provide for the advancement of original engineering thinkers he has endowed two scholarships at Trinity, one in the name of his wife, Mrs. Margaret Hallden, the other in memory of his mother, Mrs. Christina Hallden.

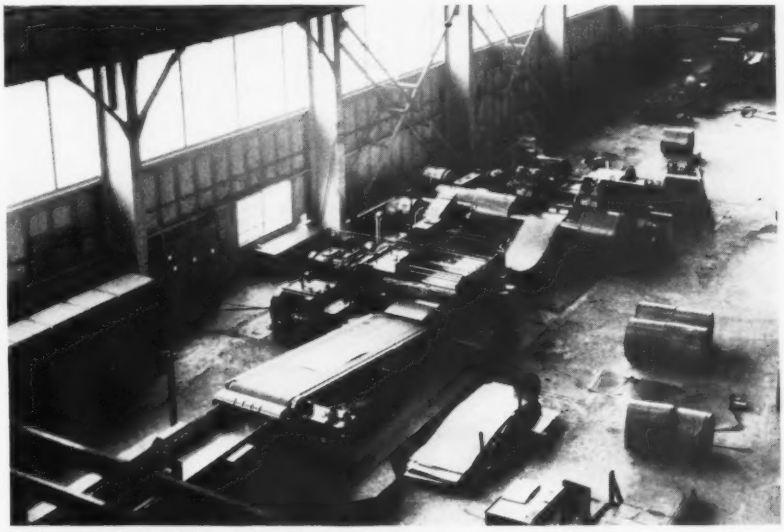
These two, full four-year tuition grants, provide first preference for Thomaston High school graduates. He also makes available five other tuition grants for Trinity College students who have shown outstanding ability after their first year in the engineering course.

Trinity does not have a full four-year engineering course, something which Mr. Hallden is striving for.

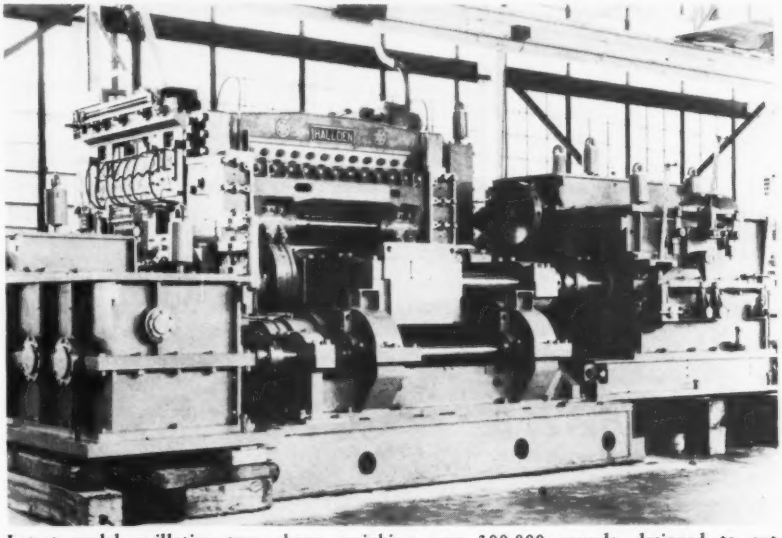
(Continued on page 71)



Type 45 Rotary Tinplate Shear which cuts up to 1,000 feet of tinplate per minute automatically.

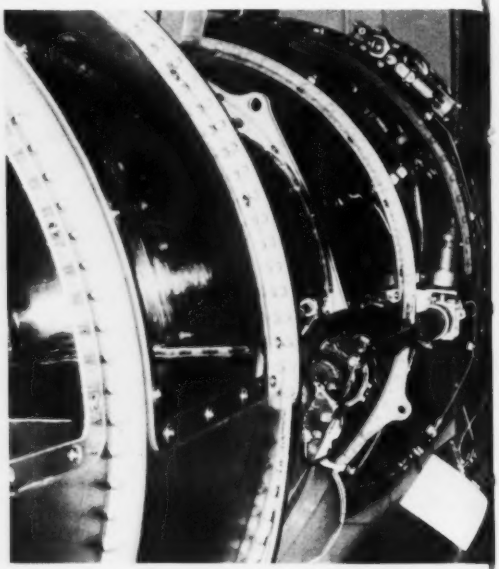


Hallden Guillotine Flying Shear in operation at a customer's plant.



Latest model guillotine type shear, weighing over 300,000 pounds, designed to cut steel ¼" thick by 72" wide at the rate of 350 feet per minute in lengths up to 32 feet long.

The Sikorsky S-59 in the central exhibit space of the Connecticut Building drew the attention of throngs from the beginning of the show to the final curtain.



This cut-away model of Pratt & Whitney's J-57 commanded much attention.

AIR AGE

In The Show Window

By HUGO T. SAGLIO
Connecticut Development Commission

■ CONNECTICUT industry had certainly taken over in the Connecticut Building when Eastern States Exposition opened in West Springfield on the morning of September 14th. This was the building that Connecticut industrialists had helped to build some 20 years ago.

For the big Exposition as a whole, the theme was a salute to Fifty Years of Air Power; and for Connecticut with its tremendous stake in the aircraft industry, this was a "natural." Most of the major participants in the industry were on hand to make the most of it. For the many thousands of spectators who ambled through the spacious Connecticut Building on the Avenue of States, Chandler-Evans brought to life the heartbeat of a powerful jet engine. The heartbeat was the highly involved fuel regulating system which circulates the lifeblood of today's advanced jet aircraft engines.

With the use of flashing colored lights within a plastic tubing, the complete fuel system of a powerful jet engine was traced on an animated panel. The lights traced the route of the fuel through a main and afterburner fuel control, a pressure control valve, a stop cock, and a main fuel regulator, all products designed and manufactured by Chandler-Evans at its West Hartford plant.

In a nearby booth, Pioneer Parachute Co. demonstrated its products in an attractive exhibit featuring several torsos in Parachute Harness. The product itself as well as its method of use were thus graphically highlighted for Mr. Average Citizen for whom "parachute" and "paratrooper" have become household words but whose concept of them remains pictorially vague.

Kaman Aircraft relied upon a series of lighted transparencies to tell the story of its products. One thing that became evident from the overheard conversation of visitors was that the helicopter was no longer just a helicopter. The public was becoming expert in distinguishing between makes and models not to mention alleged uses.

As a matter of fact, if anything stole the show, it was a helicopter—the real thing, sitting proudly right in the middle of the exhibit space in the Connecticut Building. It was a Sikorsky S59—9 feet 8 inches high, and 41 feet 7 inches in length (including rotors)—beautifully painted for the occasion in

CECO
Chandler - Evans
WEST HARTFORD CONNECTICUT
Makers of Jet Aircraft Accessories Produced TODAY to Meet TOMORROW'S Progress

The heartbeat of a jet plane came to life in the Chandler-Evans exhibit of a complete fuel system.

Both young and old learned to distinguish among various types of helicopters at the Kaman Aircraft exhibit.

(Left) Parachutes worn by pilots in jet aircraft were shown in the booth of the Pioneer Parachute Company, Manchester.

There were always spectators viewing the aircraft parts manufactured by Hamilton Standard and the transparencies of the planes in which they are used.

the Sikorsky color scheme of blue, white and gold. For many of the visitors, this was their first opportunity to see a helicopter at really close quarters and they certainly made the most of it.

The rest of the United Aircraft family was also very definitely in the building. To the mechanically-minded —and that seems to be an ever-increasing percentage of the mid-twentieth century population—Hamilton Standard presented an impressive representation of its current products. Visitors who paused to inspect the company's Pnematic Starter, Fuel Pump, Pneumatic Valve Display, and Electronic Components will never believe again that all there is to an airplane is fuselage, wings, and propeller or jet stream.

Speaking of jet streams, Pratt & Whitney aroused real expressions of wonderment with a cut away model of the powerful J57. The effect was not lost on persons who soon after seeing the exhibit in the Connecticut Building witnessed the tremendous demonstration of air power over the Exposition grounds.

For United Aircraft Export Corp., the John W. Oldham studios had designed an exhibit which both depicted the company's world-wide activities and brought pride to the bosoms of the Connecticut visitors especially. It was a giant rotating globe, pinpointing every production and service center of United Aircraft and the network of travel that links the vast system of manufacturing, sales and service throughout the world.

Dramatizing the significance of the aircraft industry to both national defense and the domestic economy were exhibits by the Connecticut Air National Guard, the Civil Aeronautics Administration, and the Connecticut Department of Aeronautics, the latter with an activated map of Connecticut depicting the distribution of the industry in Connecticut.

In a building devoted this year almost entirely to the aircraft industry, the presence of two weather bureaus —the U. S. Weather Bureau at Bradley Field down on the main floor and Travelers on the balcony just outside the regular WTIC studio installation— hardly seemed "purely coincidental." While the representatives of both of these prognosticating services concentrated on methods and materials of weather forecasting, the connection be-

(Continued on page 47)

Communications Break-Through

By C. M. WHITE, Chairman
Republic Steel Corporation

Mr. White challenges businessmen to close a big gap of misunderstanding that now exists between management and unions, industry and the public and between industry and government. He recommends that each company gather the facts on practical economics and pass them along to employees and the public in language properly understood by each group. Regardless of cost, he feels, it is necessary to spend what is required for management and employees, in particular, and the public in general, to understand the workings of our economy if we are to become "a truly united people going down the road of prosperity and happiness together."

C. M. WHITE

■ WE at Republic have invested a great amount of time, thought and money in the development of a communications program. We think we have a good program, and we have worked hard to carry it out.

But as I analyzed the tools of communication, and measured their effectiveness against the magnitude and urgency of the job to be done, I was forced to conclude that management has seriously underestimated the scope of the communications problem.

In spite of the effort that American industry has made to tell its story, the typical man on the street is suspicious of big business; he is confused by labor-management issues; he has very little real understanding of the fact that his security, his job, his prosperity and his future are directly dependent upon industrial progress. He has even less understanding of the role of capital and profits in our economic system.

The situation has improved in recent years, partly because the general education level is rising; partly because we in industry *have* exerted ourselves to make clear our objectives, and partly because of the sheer impact of industry's achievements. But there is still a wide gulf of misunderstanding between management and organized labor, between industry and the public, and between industry and government. I think this is the most serious challenge confronting us today.

Understanding: Key To Problem Solving

If the three great segments of our economy can understand each other, there is no domestic problem that cannot be solved, no reasonable goal that cannot be achieved.

It is encouraging that so much progress has been made in the field of labor relations. Management has accepted unions as a permanent part of our economic structure, and many labor leaders have come to respect management's sincerity as well as performance. Thoughtful men on both sides of the bargaining table know that the partnership-in-fact of American labor and management has built the greatest production machine the world has ever seen.

Industry leaders have accepted the responsibility for training, for improving working conditions, and for raising productivity by investing in better tools and processes. Furthermore, as productivity increased, they have shared the benefits in the form of shorter hours and higher pay. As a result, the American laboring man has the best tools, the highest wages, the shortest hours, the greatest security and the highest standard of living to be found anywhere on earth.

I believe that most labor leaders know this. I believe they are well aware that today's high wages can be paid only because management planned well, invested heavily in research and natural resources, and raised enormous sums for expansion and development.

In spite of this progress, there are still areas of disagreement. But with each new contract I believe that leaders on both sides come closer to an understanding of mutual problems and goals.

Unfortunately, this understanding is not shared by many union members. How many men in your plants understand the relationship of profits to jobs and job security? Of productivity to wage increases? To prices? To the standard of living? How many understand the relationship of dividends to your ability to raise equity capital? In this area we have failed to communicate the facts to our employees, and many of our labor troubles in the past few years have stemmed from this failure.

Our failure has been even greater in our dealings with the public, and with the agencies of local, state and federal governments. I have deliberately linked the two, because I want to underline an omission that I believe is at the base of our trouble in these areas. We have forgotten, too often, that we in these United States are a democracy.

Behind every agency, every bureau, every office are the unseen and often unremembered people, the voters. Stripped of all sentimentality, the bare fact is that they control the destinies of this country from the ballot box.

Pressure groups and political tactics can influence the outcome of the vote for short periods of time. But in the long run the opinion of the majority prevails, and will prevail as long as our system of government endures.

With this in mind, it is clear that we are continuously accountable to the public, and if we are judged accurately on motive, method, performance and future plans, I have no fear of the outcome. As a group, the men of management in American industry are the economic conscience of the nation.

But if citizens are to act and vote intelligently, they must know the facts, understand the facts, believe the facts.

Yet the average voter today knows little about economics, or about business methods and problems. When controversies arise between labor and management, it is easier for him to understand labor's point of view than management's because "wages" and "working hours" are more familiar to him than "profits" and "productivity."

More Exact Knowledge, Better Language Needed

In working to establish a common meeting ground with the general public, as well as our employees, we must remember that the individual is the common denominator. When we can speak of business and economic problems in a language the average man can understand; when we can demonstrate the oneness of his problems and ours, we will have taken a giant step toward ending strikes, inflationary pressures, and unwise government interference.

I think these are reasonable goals, but let's make no mistake about it. To succeed, we will have to increase, drastically, the amount of time and money we spend in getting the facts and getting them across to the people.

It is a startling idea, but *we know very little about some of the most basic dynamics of our economy*. We talk and write a lot about them, but their true nature is still hidden in the frontiers of economic theory. For example, let's look at taxes and government spending.

Most of us have done a lot of painful thinking on this subject. I think you would agree that taxes are too high; that incentive is being endangered; that the accumulation of investment capital is being hindered. Yet how many of us could answer even one of these questions on the basis of exact factual knowledge?

What is the danger point in the ratio between taxes and the national income?

What is the optimum revenue balance between the corporate income tax, the individual income tax, and excise taxes?

What is the long-range effect of the corporate tax on the flow of equity capital?

Have government spending programs speeded or slowed the growth of our economy?

Should we apply our surpluses to tax cuts, reduction of the federal debt, or both?

I have an *emotional* answer for each of these questions. But when I approach them from the standpoint of exact knowledge, even with the aid of some of the best fiscal experts in the country, I am forced to admit that *I do not know*.

It is small consolation, but I am not alone in this. No one else knows either. Economists, legislators, labor leaders, teachers—we are all in the same boat.

It is hard to say "I don't know" on vital issues. But it is the beginning of wisdom. It leaves us no alternative. *We've got to get the facts.*

I think we should do everything we can to encourage research in economics and economic sociology. We need precise knowledge in these fields just as we do in metallurgy or electronics. We need to remove the guesswork, and reduce economics to a working science.

I do not make this proposal lightly. Our economy has grown so rapidly that many of our methods and policies are outdated. It generates such tremendous power its weaknesses seem unimportant in times of prosperity, but even a rumor can set it to creaking. When it threatens to break down we prime it with spending programs here, and reinforce it with new laws there, but since we don't know exactly how the thing works we pray a little every time we tinker with it.

I think this is a dangerous situation, and I don't think there is any cheap and easy way out of it. We spend billions of dollars and millions of man-hours for research in the physical sciences; I say let's spend what it takes to understand the workings of our economy. Republic will do its share.

But from the standpoint of communications, getting the facts is only the first step. Information alone is of no more use than iron ore in the ground. It must be refined and shaped into forms useful to the audience. And there, I think, we have failed worst of all. Even in those areas of technology and simple economics where we know whereof we speak, we have failed to develop a language that has meaning for the layman.

We talk, we write, we sow words broadcast across the nation but we do not spend enough time listening to what we say. We do not hear how our words and meanings are twisted or misinterpreted by the receiver. We assume that his vocabulary is identical with ours.

To show how tough this problem can be, I want to tell you some of the experiences we have had in Republic. I am not talking about these things in a boastful way, for many companies have taken similiar steps, and some have gone further than we have. But we have learned some lessons, and I want to pass them along for what they are worth.

Several years ago we decided to set up a program to teach basic economics to our 7,000 supervisors. It seemed like a simple project when we started, but in doing background research on the problem we came upon some facts that astonished us, and broadened our objectives.

Little Teaching In Schools

Now this will be hard to believe if you have never investigated it, but we found that there was no textbook, no high school or college course in business economics that could be adapted to our needs. The language was wrong, and the material was either too abstract, or downright misleading in its content or treatment.

Equally disturbing was the discovery that only a few public schools taught economics; that most economics "courses" were merely short sections in general social studies, and that very few economics teachers had firsthand knowledge of business and industry.

The situation was so bad we had to develop a program from the ground up. We asked the Industrial Relations Center of the University of Chicago to work with us in researching, writing and field-testing a set of materials.

We had allowed six months for the job when we began. It took us two years to complete it—two years to determine the principle areas of misunderstanding to translate ideas into simple language, to develop visual aids when language proved ineffective, and to teach the teachers how to teach even this simplified set of facts and formulas.

Research and Testing Pays Off

But when we finished we had something of value. We found that when a supervisor took the course his ability to understand and interpret economic data jumped an average of forty percent. Interest in this supposedly dull subject jumped still more. Men came to class early and stayed late. They came even if vacation schedules conflicted with classes. They carried their new knowledge and interest not only into their job, but into their home and community. It was an expensive undertaking, but the improved performance of supervisors, alone, more than justified the cost.

We learned something else, too. People are hungry for economic information if it is presented in an interesting and understandable form. We have field-tested the course with union groups, teachers, high school students and women's clubs, and without exception their interest has been high.

Interest in the program spread to other companies and the University of Chicago found that it was unable to keep up[8] with the job of training conference leaders. The aid of eight other colleges and universities has been

(Continued on page 53)

The Way Business Rates T

Industry is developing a new way of rating States as good or bad places for business.

Companies that used to locate factories on the basis of cheap materials or labor now ponder questions such as these—

Are taxes "fair to business? Are workers "strike happy"? How good are the schools? This article tells how and why States are being rated on these points.

■ THE General Electric Company is building factories in Virginia because it likes that State's labor laws and the attitude of Virginia politicians toward business.

That is company policy, just announced by the GE president, Ralph J. Cordiner. What he said underscores a trend in business thinking that is becoming more important to cities and States all over the country.

There is strong rivalry now among localities for new factories. State and local development groups are being set up everywhere to attract industry. Their aim is to get the largest possible share of the record outlays—now more than 35 billions a year—for new plant and equipment.

These groups are being told by management: "We plan to go where we feel most welcome, where government is least troublesome, where employees are likely to be most contented."

Evidence is piling up to show that such factors as those listed in the chart on page 13 are being studied by businessmen just as carefully as raw materials, markets and transportation. The reason is, chiefly, their impact on profits.

"In some lines of business, the uncontrollable costs determine, within narrow limits, the location of plants," said a recent report of the U. S. Chamber of Commerce. "But in most industries, these costs can be overshadowed by others which are more man-made, shaped by basic attitudes in the community toward private enterprise."

How much labor trouble? This is one of the first questions businessmen ask about a locality where they might build a factory. With companies that have had much labor trouble, the answer to this question may prove decisive.

The Kohler Company, which makes plumbing fixtures, gas engines and electrical appliances at Kohler, Wis., has been involved in a strike of members of the United Auto Workers for two and a half years. The union, failing to close the factory, has been directing a boycott against the company's products.

Meanwhile, Kohler has been looking for a place to put a new 5-million-dollar factory and has chosen South Carolina. The company looked at official figures and discovered this:

In five years, 1951-55, South Carolina has had fewer strikes, in relation to the size of its labor force, than any other State. Amount of time lost per worker has been less than one-third the national average. Complaints to the National Labor Relations Board from South Carolina workers have been relatively few.

Labor laws are another source of concern to many businessmen. The U. S. Chamber names two types of law that seem to be most important.

One of these is the "right to work" law, which says that a man cannot be fired for refusing to join a union. Favored by the Chamber and many of its members, the law amounts to a ban on the "union shop."

Another type of State legislation is considered unfavorable to business. This is the so-called "Little Wagner Act," creating State agencies similar to the National Labor Relations Board to which workers can carry complaints.

All States cited in the chart as having labor laws that favor management have right-to-work laws but do not have "Little Wagner Acts."

That is one big factor in Virginia's favor, according to GE.

"We believe that we should go to States that have right-to-work laws," Mr. Cordiner said. Two of GE's newest plants have been located in Virginia and a third is being built there. "We'll be interested in more facilities in Virginia," Mr. Cordiner promised.

General Electric's major rival, Westinghouse Electric Company, cited a State labor ruling in an announcement that it would place most of its future plants outside of Pennsylvania. Pennsylvania officials had ruled, during a strike against Westinghouse, that workers could collect unemployment benefits, on the ground that they had been "locked out."

Westinghouse also complained that Pennsylvania's taxes on business were too high. The tax situation in the States is considered by some companies even more important than the labor situation. According to the U. S. Chamber, industry is drawn to localities where they are asked to pay no more than their "fair share."

Soaking business? Study of official figures on tax collections shows businessmen that some States depend more heavily than others on business taxes, including the corporate income tax, gross-receipts taxes and license fees.

At one extreme is Wyoming, drawing less than 4 per cent of its tax receipts from those types of taxes. At the other extreme are States that rely on business taxes for one-fourth to one-third of their tax revenue.

State taxes apparently helped guide General Motors in putting a new plant in Ohio instead of in a neighboring State. Business taxes carried less than 12 per cent of the State tax load in Ohio in the year ended June 30, 1955.

Concern over taxes leads to concern about the State budgets. Many reason that a State spending itself into debt sooner or later will have to raise taxes. When it does so, the question will arise whether to take the extra money from business.

There is a tendency for States to do that. Official figures for the five States with the largest amount of debt in relation to their annual revenue show that four of these States call on business for more than an average share of the tax load. The exception is West Virginia, which holds down taxes in order to attract industry.

On the other hand, a good many businessmen are leery of States that pinch pennies to the extent of slighting essential government services, such as education, health and highways. This brand of economy, according to GE and other concerns, is likely to make it hard for a business to find and hold good workers.

Workers who can learn to handle exacting jobs and high-speed equipment are a must for a modern factory. So the search is on for localities that have plenty of young people and people with a good deal of schooling.

You see that tendency reflected, in part, in the boom in California, a State that spends heavily on schools and has a large proportion of young people and high-school graduates.

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The States

WHEN PLANT SITES ARE PICKED–

—More and more companies, to reach a decision on plant location are using this kind of check list:

Q. IN WHAT STATES ARE THESE ADVANTAGES TO BE FOUND —	A. THESE STATES SCORE HIGHEST, GOVERNMENT REPORTS SHOW —
Fewest strikes, relative to number of urban workers?	South Carolina, South Dakota, North Carolina, Texas, Georgia.
Smallest portion of revenue raised from State taxes on business?	Wyoming, West Virginia, Indiana, Iowa, Nevada.
Least regulation of business as indicated by amounts budgeted for this purpose?	Oklahoma, Georgia, Delaware, Michigan, Montana, South Dakota, Wyoming.
Laws favoring management rather than labor unions?	Georgia, Florida, Alabama, Arkansas, Colorado, Iowa, Mississippi, Nebraska, North Carolina, South Dakota, Texas, Virginia.
Most young people, aged 20 to 29, relative to total population?	Virginia, North Carolina, Maryland, Rhode Island, Wyoming.
Highest enrollment in vocational training courses?	Colorado, Washington, Florida, Arizona, Louisiana.
Highest expenditure per pupil in public schools?	New York, Oregon, New Jersey, Wyoming, Montana.

NOTE: Questions based on points raised by U.S. Chamber of Commerce and various companies.

Put all the factors together and you have what businessmen call "the business climate." Some concerns actually try to compare the climate for business in the various States by a kind of statistical thermometer, and the U. S. Chamber of Commerce has published booklets telling businessmen where to get figures for such a rating system.

In addition, an economist for the Chamber has published a study showing how a formula can be used to compare the business climate in a group of 15 States. These States, all interested in the textile business, were compared statistically on the basis of 20 factors, then given an over-all rating. The rating was then compared with their progress—or decline—in textiles.

Four Southern States came out with very high ratings, good business climates, from the Chamber's point of view, and these four all showed expansion in textile production. New England and Middle Atlantic States received lower ratings on the basis of the formula; among them were States that lost a lot of textile mills.

In other words, it appears that companies in this one industry planned their operations the way they would have been expected to, if they had rated the States as the Chamber's economist did.

In actual practice, companies differ on the importance of the various factors in the business climate. GE is impressed by Virginia's labor laws and not too concerned, apparently, about the large proportion of State revenue derived from business taxes. GM likes Ohio, though that State has a record of more than an average number of strikes.

Many manufacturers in New Jersey, according to a survey made by Seton Hall University, are thinking of moving from the State. It spends rather freely on roads and schools, but compares less favorably with other States in labor trouble, labor laws, taxes and regulation of business, as viewed by business managers.

On the other hand, some States—notably Wyoming and South Dakota—show up favorably on the chart but have little industry. Physical factors have held back industry, even though State policies are meant to be attractive.

On the whole, the record shows that industry is giving a lot of attention nowadays to the public atmosphere, the attitude toward business they will find in any locality where they decide to put a new plant. Over the years, some companies have found that costs of doing business in an unfriendly climate can outweigh savings on such things as freight or power or wages. There's a new move afoot to rate the States on the intangible factors that go to make up the business climate. Results are becoming evident to the States in the loss or gain of factories.

OPERATION ANNUAL MEETING AND CONFERENCE

Connecticut Industry **reports the highlights of the 142nd Annual Meeting on the following pages for the benefit of all members and readers of C.I. The Association gratefully acknowledges the important recording service rendered by the SoundScriber Corporation of New Haven, without which it would have been impossible to give so complete an account of the wide variety of valuable suggestions made by the eleven men who participated in the afternoon and evening sessions. With the exception of President Fuller's Report on Association Activities (not given in detail in his address), the remarks of all participants have been edited downward for reasons of space—some more than others either because of indistinct recording or because the nature of the topic treated permitted a greater condensation.**

This group of industrialists attended the afternoon session. The photo at the right shows the head table at the evening session.

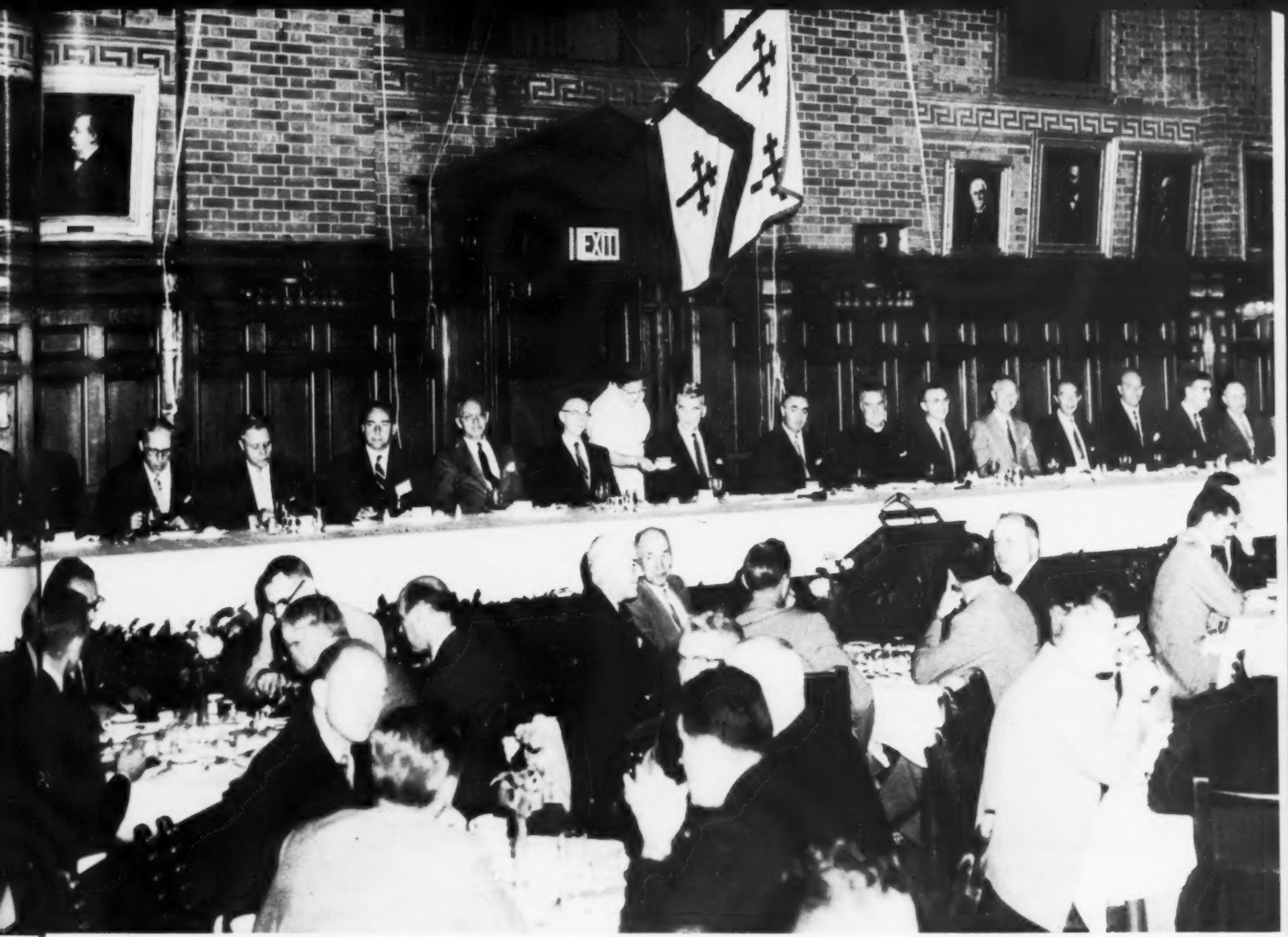
■ MORE than 750 members and guests attended the Association's 142nd Annual Meeting sessions held for the ninth consecutive year at Yale University Tuesday, September 10.

Departing from the usual pattern of holding panel conferences concurrently in separate rooms, this year's two conference sessions—"Employee Morale" and "Are Executives Living Too Dangerously"—followed one another in the auditorium of the Sterling Law Building, thus permitting some 350 to hear all seven panel participants and the final address on "Let's Look at Tomorrow" by Louis P. Shannon, manager, Extension Division, E. I. du Pont de Nemours & Co., Wilmington, Delaware.

The normal attendance at panel conference sessions in past years, when held concurrently in separate rooms has ranged from 60 to 200.

The afternoon Business Session was called to order at 2:20 P.M. by President Harrison Fuller, who called successively for the Treasurer's report and the reports of the Budget and Nominating Committees.

John Coolidge, president, Connecticut Manifold Forms Co., West Hart-



ford, who is currently completing his thirteenth year as treasurer of MAC, gave the Treasurer's Report.

Edward Ingraham, chairman, The E. Ingraham Company, and chairman of the Association's Budget Committee, gave that committee's budget recommendations for the 1957-58 fiscal year beginning November 1, 1957 and ending October 31, 1958.

Morgan Parker, president, Bard-Parker Co., Inc., Danbury, and chairman of this year's nominating committee, reported the recommendations of his committee for five directors to serve for a four-year term beginning January 1, 1958. All three reports were approved, and it was voted that the secretary cast one ballot for the election of the board nominees submitted.

The nominees elected were: J. Arthur Atwood, 3rd., president, Wauregan Mills, Inc., Wauregan, as director from Windham County, replacing Henry S. Woodbridge, vice president, American Optical Co., The Safety Division, Putnam; Jack T. F. Bitter, president, treasurer, The Parker-Hartford Corp., Hartford, succeeding Sherman R. Knapp, president, The Connecticut Light & Power Co., Berlin, representing Hartford County; Lucius S. Rowe, president, The Southern New England Telephone Company, New Haven, replacing George R. Holmes, president, The McLagon Foundry Co., New Haven, representing New Haven County; Harold Leever, president, MacDermid, Incorporated, Waterbury, for director from New Haven County, replacing John A. Coe, president, the American Brass Company, Waterbury; and John Douglas, president, Republic Foil & Metal Mills, Inc., Danbury, as director at large replacing Louis R. Ripley, Litchfield.

Following adjournment of the business session, the two panel conferences ("Employee Morale" and "Are Executives Living Too Dangerously") followed in succession, with Louis P. Shannon's address, "Let's Look at Tomorrow," as the closing feature of the afternoon session, adjourned at 5:10 P.M. (Highlights of the talks by all participants are recorded in this issue.)

The Entertainment Hour was held as in former years at the St. Elmo Club between 5:15 and 6:15 P.M.

With usual promptness the evening session began with dinner at 6:30 P.M. in the Yale Dining Hall. Reverend C. Lawson Willard, Jr., rector of Trinity Church-on-the-Green, New Haven, gave the Invocation following the singing of the National Anthem. Approximately 700 were in attendance at this session.

At 7:40 P.M. President Fuller introduced the head table guests, followed by his introduction of Governor Ribicoff. Highlights of the Governor's address appear elsewhere in this issue.

President Fuller then gave a brief account of Association activities, ending with an appeal to members to give serious thought to ways and means they might apply to slow down the current wage-price inflation which has now taken the "bloom off the boom," we have been experiencing for the past several years. His full account of association activities is given in this issue and that portion of his brief talk dealing with "inflation" follows as Part II.

President Fuller introduced the featured guest speaker, The Honorable Walter H. Judd, Congressman from Minnesota, member of the House Foreign Affairs Committee, Delegate to the United Nations and authority on International Relations, at 8:20 P.M. Speaking on the "Impact of

The Business Session in the afternoon featured committee reports. Shown are L. M. Bingham, Association secretary, Morgan Parker, chairman of the Nominating Committee; Harrison Fuller, president; P. B. Watson, vice president; John Coolidge, treasurer; Edward Ingraham, chairman of the Budget Committee and N. W. Ford, executive vice president.

World Events on American Industry," Congressman Judd held the audience spellbound for the next hour as he drew, without benefit of notes, a masterpiece word picture of the serious problems posed for the United States and the free world by Russian-Chinese Communism and what tactics we must follow to have an even chance of winning the struggle for the ascendancy of the free world.

The meeting was adjourned at 9:25 with a standing ovation that left no doubt as to the enthusiastic reception of Dr. Judd's address, the highlights of which appear in this issue.

Methods of Evaluating Employee Morale

Highlights of Statement at the Employee Morale Conference*
By HERBERT HOSKING, Management Consultant
New York, N.Y.

■ HIGH morale in an industrial plant is the inevitable result of good organization, good policies and good communications.

There are two general approaches to the problem of evaluation. One is impersonal, or statistical, using statistical methods for the assessment of existing data, such as productivity. The second method goes directly to the worker himself, through interviews or questionnaires.

Because personal contact with the worker, whatever the method, is a form of communication, it almost always produces a marked improvement in morale as a by-product of the investigation itself.

Since no medical doctor will diagnose or prescribe for himself, or his family, when it can be avoided, we should guard against the pitfalls of self-diagnosis in the morale field. As in medicine symptoms of high or low morale are easy to describe, but may mask the true cause of either state. Both symptoms, and the possible causes must be "checked out" objectively in the light of psychological, sociological and even anthropological, knowledge and experience, as well as the evident "facts," if effective treatment is to be prescribed.

In looking at the relationship between wage levels, productivity and morale it becomes evident that so far as wages are concerned, man does not live by bread alone—he will take cake when he can get it—and neither diet has necessarily an immediate effect on his morale.

In practice, the factors that must be studied and evaluated are the temperament of the individual worker, the small working group of which he is a part on a daily basis, the organization that has hired him, his supervisor, and various intermediate influences, such as his membership in a Union or other group with powerful ideological influence on his actions.

In cases where good communication has produced some sense of a common task between the elements studied, morale is likely to be good.

Real insight into the problem of morale begins with understanding the origin of the word. Historically, the word morale is linked to the word moral. So we can say, consequently, that when a worker's sense of "what is right" is violated, his morale is low. It may be obviously affected also by the presence of a different set of values from his own in the group of which he is a part, whether it is a working-craft group or a union. The presence of "rate busters" in every incentive pay structure is a testimony to the fact that there are only a few people whose personal sense of values is impervious to group pressure.

The atomic age, and the automation that accompanies it will make morale questions more important, rather than less. The industrial groups whose morale will be important to our future will be smaller, but they will be more highly skilled, and will have a greater awareness of the economic, moral and ethical values attached to their work.

From the standpoint of the more immediate future morale questions are important because of their bearing on inflation. It is evident that we cannot

The panel on "Employee Morale" was an interesting feature of the afternoon session. Panel members were, left to right, Donald A. Bender, secretary, The Carwin Company, North Haven; Herbert H. Meyer, consultant, public and employee relations research, General Electric Company and Herbert Hosking, management consultant.

** Because of an indistinct recording and lack of Mr. Hosking's complete address the foregoing highlights were taken from his advance publicity release.*

engineer our way beyond the reach of inflation by using more-and-more productive machines, when productivity and cost-of-living wage increases run faster than the machines.

For this reason morale evaluation in any company should probably begin at the top and concern itself with management's recognition of what is right, and its willingness and ability to defend a moral position against the inflation-producing ideas of other groups.

Building Morale in a Small Company

Digest of Address at Employee Morale Conference
By D. A. BENDER, Secretary
The Carwin Company, North Haven

■ PICTURE if you will, a busy shop, perhaps your own. There are several operators and mechanics at work on various machines. There is a foreman in the picture and the manager is talking to a supervisor. There is obviously a great deal more to the picture than what we can actually see, and I would suggest that everything we can't see is morale.

Now it seems to me that the key to building morale lies in developing stronger, more positive relationships between individuals. For discussion I would like to suggest three kinds of individual relationships.

1. Supervisor—subordinate relationship, which I call the *"Boss" Relationship.*

2. *"Associate" Relationship* (such as between two foremen or two operators).

3. *"General" Relationship* (such as between the president and an operator in the plant or between persons in different departments).

I've posed some general questions about building morale in a small company which I would like to answer in terms of these relationships.

Building Morale in Top Management

The first is—where do we start to build morale in a small company?

It seems to me that, unlike visible structures, we must start at the top and work down. What could be more important to the company as a whole than the morale of the president and other officers?

"Boss" and "Associate" Relationships

These relationships tend to merge at the top. Building morale in top management is primarily the president's job, although the other members of the top management group also have a distinct responsibility in this area. Top managers require broad and challenging assignments with suitable rewards, and properly defined areas for planning and decision making. However, I believe the greatest morale builder is teamwork. A top management job is inherently a lonely one and the association with others imbued with the same basic purposes can be a tremendous asset to morale. Mutual confidence and compatibility are particularly important because the boundaries enclosing areas of responsibility often have to be quite fluid in a small business. Some turnover is probable and often essential in building a strong team.

A management team which has established a network of successful relationships among its members is the best basis for extending sound relationships throughout the company.

"General" Relationships

If we don't build them regularly, hostility and suspicion are likely to be aroused.

There are many ways to build "General" Relationships. One of the most effective is frequent informal appearances in the shop where relaxed exchanges between managers and men as equals on the job are natural and engender confidence. There are hazards in these relationships. We must avoid by-passing the foremen and in being paternalistic. Develop the dignity and worth of the individual in his job so that he feels equal to all others as a person.

Building Morale in Foremen and Middle Management

Another important question is—recognizing the importance of top management, how about the foreman and supervisors—the so-called middle management? What steps should be taken to build morale in this group?

"Middle" is more apt a word than generally realized. This group is in the somewhat frustrating position of having very little to say about what should be done, yet being responsible for practically all that is done.

"Boss" Relationships

1. Bring these people in on planning.

2. Be sure they understand general objectives, and the reasons for them.

3. Be sure that what is expected of them is reasonable.

4. Give them well-defined cost responsibilities with their own monthly cost sheets.

5. Give them unusual but purposeful assignments whenever you can which get them away from their regular jobs and provide opportunities for personal broadening and development.

6. Be sure these people recognize that everything possible is being done to foster promotion from within the company.

"Associate" Relationships

Teamwork for foremen and supervisors is important because it is here that the "ball" often falls "between the fielders." Our experience strongly suggests the use of meetings to overcome this difficulty. The work meeting with a stated objective which develops a program designed to meet the objective in which each person clearly understands what he is to do and what the other fellow is to do is probably the most important process in business. It develops the team concept and good "Associate" Relationships. It is efficient if properly managed. I believe the problem with meetings is that they are either poorly run or there are more programs developed than people have time to carry out before the next meeting.

"General" Relationships

The building of "General Relationships with this group is important because they are the medium of communication between "Top Management" and "everyone else." One practice which we have found to be effective is a monthly review meeting with top management at which time the monthly profit and loss statement for the company is presented, and business conditions and plans for the future are discussed. Each supervisor gives a short report on the operations in his group and there is usually considerable discussion. This develops relationships between supervisors and top management and puts the supervisor in a better position to build relationships with his subordinates.

Building Morale in Everyone Else

We have given our first attention to top and middle management people who, although vital to building morale, represent after all, a minority of all company personnel. What about those

in the group called "everyone else"? How is morale built in this group, which is the largest in the company? My suggestions are:

1. Let employees know where they stand. For example, our foremen keep an employee performance record book in which an entry must be made every week witnessed by the employee. He is free to see his own record any time.

2. Develop pride in position. People need an area to call their own. In general no one knows better than the man himself how to do his job, and given the proper chance, he will indicate how it might be done better.

3. Provide opportunity for people to be considered for new job openings.

4. Help your foremen to be "the company" to their men. We have encouraged our foremen to hold meetings frequently with their men. We have sent several foremen to local courses in public speaking to help them in this area.

In order to developed associate relationships we:

1. Encourage experienced people in helping train younger, less experienced people.

2. Stress team concept on the job. Our operations are built about key men who act as working leaders on the job and are recognized and paid accordingly.

3. Have an employees' recreational club which meets monthly.

4. Have a year 'round athletic program: golf, ping-pong, bowling.

5. Publish a bimonthly company newspaper featuring contributions by employees and containing news about employees.

In the area of "general relationships" we:

1. Provide means for letting off steam by having regular monthly meetings with the union with the joint purpose of bringing problems to a head at an early stage.

2. Provide variety—there are only so many interesting foreman and lead jobs to go around, and there are many who aspire to the variety and recognition of these jobs regardless of whether they may be qualified. Other company activities have provided useful outlets for people seeking them.

3. Provide some training and education. People want a chance to improve themselves. We have had success in company developed formal training programs for specific jobs using lectures, demonstrations, even slides and motion pictures using rented equipment.

Another factor I think is often overlooked is discipline. I refer to discipline in the broader sense which means, an orderly well-run shop, high standards of performance, firmness and fairness in dealing with all employees and terminations where necessary. We have found by experience that the solid core of our people want this kind of discipline and have remarkable insight in evaluating lack of discipline. They expect company action.

In conclusion, building well-defined, interesting, satisfying jobs in which people can express their productive instinct is the key to building individual relationships which is the key to building morale in a small company.

Building Morale in a Large Corporation

Digest of an Address at Employee Morale Conference
By HERBERT H. MEYER,
Consultant, Public & Employee Relations Research
General Electric Company

■ WITH your indulgence I should like to take the liberty of confining my remarks to experiences of the General Electric Company.

I shall touch on two aspects of the subject, building employee morale, in this brief talk:

(1) our *philosophy* of employee relations, and

(2) some specific *practices* of our operating departments aimed at building and maintaining high morale of employees.

I believe it is important to preface my remarks by reminding you that the General Electric Company is operated in a decentralized manner. The basic operating unit is the "Department." Each Department operates relatively autonomously as a separate business, responsible for engineering, manufacturing, and marketing a particular product or class of products. Therefore, while there is a general consistency in philosophy, there is considerable variation in some practices in the Employee Relations area.

The Employee Relations philosophies of our operating departments have been strongly influenced by our central staff (or "Service," as we have structured it) Employee Relations group in New York. This group is headed by Mr. Lemuel R. Boulware, Vice-President in charge of Public and Employee Relations.

The primary objective of a business, Mr. Boulware points out, is essentially that of *pleasing people*. He has called attention to the fact that businessmen generally have given greater attention and developed far greater skills in the art of pleasing customers than they have in pleasing employees. Thus it follows that we might achieve a much higher rate of Employee Relations effectiveness if we were to apply some of the same approaches, or at least the same amount of effort, to the goal of pleasing employees that we have to the goals of pleasing customers.

In order to please customers, any progressive businessman conducts an intensive analysis of what the customer wants and then takes necessary steps to fulfill these desires. It is our philosophy that in the Employee Relations area the manager must give the same kind of continuing attention and study to the determination of what is *right* and *fair* for employees. He must then vigorously and voluntarily initiate a program and establish practices to achieve what is right for employees.

This leads into the second aspect of the topic—a discussion of practices. Those of our operating departments which have done the best job in building employee morale have followed the practice of systematically *pinpointing their targets*. One of the most commonly used tools for this purpose is the Attitude Survey which provides a detailed picture of the employee feelings and desires regarding their work situation. Other valuable tools for this purpose are such media of upward communication as round-table conferences of work groups, individual "how am I doing meetings" between supervisor and each of the employees in his group, and carefully conducted exit interviews of employees leaving the work group.

These systematic means of determining action targets for improving morale often reveal that the critical needs of employees do not fall in the financial or material realm. These needs we think of as being in the psychological, social and spiritual realm. In the psychological realm, for example, there are such things as pride in workmanship, desire to exercise creative capacity, and a sense of inner security. In the social realm, there are such things as a desire for pleasant and interesting associations with others, constructive relationships between boss and employee. And in the spiritual realm, there is the desire to see principles of honesty, charity, and freedom prevail.

It is becoming increasingly apparent

that even when managers are satisfying the economic or material wants of people, they may still fail in their over-all mission. It is for this reason that the extra effort to please people in the psychological, social, and spiritual realms may well be the most important determinant of management's over-all success in running the business. The three or four programs that I would like to cite for building morale will focus on problems in this area.

One of the significant goals that our departments have set in the attempt to improve morale is to *give each employee a challenging assignment* which will make use of his maximum abilities and skills and which will hold his interest. Managers in these departments have felt that lack of morale may be due in part to the fact that industry has specialized or mechanized, at least in manufacturing operations, to the point where many individual jobs hold little challenge or interest for the employee. These departments have been experimenting with the *enlargement of jobs*, so that each worker is given greater responsibility and a more meaningful operation to perform. Some preliminary results in experimental situations where this has been tried indicate that it not only improves morale, but also improves the quantity and quality of work performed.

A second major development in which our departments are participating is the establishment of systematic procedures for *assisting employees to prepare themselves for promotion.* These departments see an accelerating trend toward the development of machines to perform the onerous and routine tasks. This results in an upgrading of the human work to jobs requiring the use of more complex skills and knowledge. We find that the proportion of our work force engaged in jobs which require technical training, such as engineering, is steadily increasing. Therefore, most of our plants have established rather extensive in-plant training programs to upgrade the skills of employees who desire to advance.

A third major program is the considerable effort and attention being given by our managers to what we recognize as the major problem of *stabilizing employment.* It is difficult to maintain high morale among employees who are in continual fear of being laid off.

A fourth major goal relates to *communication.* Our attitude surveys repeatedly show that employees have a strong need to be "in on things." They welcome information about the state of our business, developments we foresee, especially as they affect them personally. Poor morale may be based not only on dissatisfaction with present conditions, but on fear of the future. Fear is often based on the unknown or on lack of understanding. Therefore, a good communication program, in which a concerted effort is made to keep people informed on matters that relate to the business and their jobs, has been found to be of immeasurable value in building good morale.

I wish I had time to cite many more of the interesting programs our people are engaged in to build employee morale. Let me summarize by saying that we feel that our managers must work just as hard, or even harder, in the Employee Relations area as they do on the engineering, manufacturing, marketing, and finance phases of the business. Impressive evidence exists that improving relations with employees must be a way of life not only in General Electric, but in industry generally. We cannot fail to fulfill our social role in this important area.

Governor Ribicoff chats with Hon. Walter H. Judd before the start of the evening session.

The Family Group and Executive Help

Digest of an Address
By Franklin S. DuBois, M.D., Associate Medical Director, Silver Hill Foundation For the Treatment of Psychoneuroses, New Canaan, Conn.

■ SHORTLY after I was invited to participate in this panel I mentioned the topic to a colleague. He promptly commented, "Executives aren't living too dangerously; they're living too carelessly."

So I asked myself the question: In what basic manner are executives not paying enough attention to what they do? What are they *really* neglecting? Slowly the answer evolved: Many executives, as well as many other people, are careless in their handling of interpersonal relationships. What, you may ask, does this have to do with health? Just this: Unharmonious relationships between human beings always produce anxiety and even a cursory survey of public health records indicates that sickness due to anxiety is becoming more frequent. It is authoritatively estimated that 10% of the American people are now emotionally ill. More specifically, here in Connecticut the population has increased 38% in the last twenty-five years while the admissions to our three state mental hospitals have increased 158% in the same period. While these statistics are for the public at large and not for executives in particular, there is no reason to assume that executives fare better than others in the community. There is even evidence to suggest that they may be especially vulnerable to illness that originates in anxiety.

These statements give pause for serious thought. How can this rising tide of emotional sickness be stemmed? Certainly not by eliminating stress with the currently popular tranquilizing drugs or even by avoiding stressful

situations. Only by improving interpersonal relationships can anxiety be reduced.

The Role of the Family in Interpersonal Relationships

How an individual reacts to other human beings depends primarily on his own attitudes and feelings and these attitudes and feelings are acquired very early in life. Adult adjustments to life have their origins in early family living. Obviously, therefore, the family group plays a vital role in the emotional health of the individual. The general attitude of parents, the example they set and the emotional climate of the home are the prime factors that condition a person toward

President Harrison Fuller, who presided at the afternoon session, is shown introducing members of the panel discussion entitled "Are Executives Living Too Dangerously?" They are, left to right, Dr. Franklin S. DuBois, associate medical director, Silver Hill Foundation, New Canaan; Dr. William P. Shepard, second vice president, Metropolitan Life Insurance Co.; Dr. Leo Wade, medical director, Esso Standard Oil Company; Dr. Harry J. Johnson, medical director, Life Extension Examiners, and Mr. Fuller.

immaturity with its attendant anxiety and poor interpersonal relationships or toward maturity with its minimal stress and good relationships with others. Since this is true, *what,* in terms of practical everyday living, are some of the more frequently observed attitudes and patterns of behavior, formulated and fostered in the home, that disturb human relations and bring about emotional suffering, physiological dysfunction and even symtoms of mental illness? *Second,* what are some of the more helpful points of view and techniques that make for top efficiency and harmonious living? Finally, how can the executive help to improve the emotional health of the people around him?

Attitudes and Patterns of Behavior that Disturb Human Relations

It is well known that troublesome attitudes in the adult are strikingly like attitudes seen regularly in the child. In other words, annoying points of view in the chronologically mature person are really reactions characteristic of immaturity. Prominent among these points of view are identified in the following paragraphs.

Exaggerated interest in self. Such a person is egocentric, like the infant who is interested solely in himself. If the developing child has not received sympathetic and understanding guidance in the home in his early years, he carries the unfortunate and handicapping attitude of egocentricity into his adult relationships with the result that he fails to have appropriate consideration for those around him. His lack of feeling for others inevitably leads to alienation and disharmony. Such friction invariably increases the likelihood of emotional sickness.

Poorly controlled aggression is also a disharmonious attitude that is an obvious indication of immaturity. Energetic action is an admirable quality but unduly aggressive behavior is disastrous to interpersonal relationships. The uncertain individual overcompensates for his feeling of insecurity in a frantic effort to achieve a feeling of security and in his aggressive actions he transgresses the rights and privileges of others. As a result he leads himself toward emotional isolation and loneliness. Such a person often is financially prosperous but always is unhappy, apprehensive and finds it difficult to get along with other people. As a result he is exceedingly vulnerable to emotional disturbance.

A persistent need to control and dominate others stems from similar immature sources. This attitude is prominent in adolescence when a youngster is attempting to establish his personal worth. At this period of life dominating behavior is to be expected but if it is excessively evident in adult years, it is a clear indication that the individual is motivated by strong feelings of inferiority and inadequacy even though such feelings are not apparent. This type of person drives others from him by his insatiable need to boss. He estranges. He sets himself apart. Basically he is frightened and, accordingly, is an easy prey for phschological illness.

Points of View and Techniques that Make for Top Efficiency and Harmonious Living

Just as it is well known that troublesome attitudes in the adult stem from emotional immaturity, so it is well known that helpful points of view in the adult are the direct result of emotional maturity. They are the outward manifestations of a well-rounded, secure personality. Prominent among such wholesome attitudes is:

Tolerance, the hallmark of maturity. Tolerance is not just a virtue; it is a direct channel to good emotional health because it is that quality which enables one to accept other people as they are, and makes it easier for others to accept him. Consequently, the tolerant person is following a path that leads to the warm and reassuring stream of smooth interpersonal relationships. The resultant joy of companionship, comfort of friends and support of loyalty combine to help any man meet the strains of everyday living with a feeling of greater security. A genuinely tolerant person need have little concern for his emotional health. It will almost certainly be good.

Respect for other individuals is a useful attitude that is closely allied to tolerance. The emotional needs of others are always of paramount importance. It is easy to be friendly and cooperative with those who please or agree but not so easy with those who displease or disagree. One should try to understand the other person's point of view and try to discover the factors that have entered into his attitudes and patterns of behavior. Even if a person is difficult, he can be understood. It is well to bear in mind that difficult people are usually people who are afraid; therefore, good technique requires that their annoying behavior not be directly combatted but that their apprehension be allayed by finding and eliminating the cause of their anxiety. Only then are they made less troublesome and less susceptible to emotional disturbance.

Understanding one's self and the effect of one's personality on others must be a continuing daily effort if one is to have good interpersonal

relations and minimize stressful situations. While it is true that stress and strain are good and productive up to a point, it is also true that failure to understand one's own motivations and the impact of one's words and actions on the people around one converts the ordinary stress of living into tension that can produce a variety of nervous symtoms and even may make the body more vulnerable to genuine physical illness. The attempt to understand one's self should be never-ending. One ought to be alert to the fact that it is not the obvious things that are most significant in one's thoughts and actions. Intangible factors below the surface critically influence one's interpersonal relationships. Clinical experience overwhelmingly supports the maxim that the better one knows oneself, the smoother are one's relations with others and the stronger is one's emotional health.

How the Executive Can Help to Improve the Emotional Health of the People around him

Unquestionably by assuming a position of leadership in the effort to improve interpersonal relationships. And it is to be remembered that a position of leadership is not a gratuity to be expected by the executive because he has a significant title, a high salary or a particular job in an organization. Or is it to be expected in the home because he is a husband and a father. A position of leadership must be won on merit. It is not achieved by bossing and driving, but by superior and trusted performance. An executive's subordinates and the members of his family want to rely on him and respect him, and for their own security and good health they should be able to do so. Therefore, every executive must conduct himself in an understanding, moral and helpful way both in the office and in the home if he is to command the loyalty and esteem of those for whom he is responsible. And only with loyalty and esteem can there be the confidence that makes it possible for the executive to lead—to lead those around him toward tolerance, toward respect for others, and toward self understanding, those attitudes and patterns of behavior essential for careful living—and truly careful living means buoyant mental health.

The Executive and Retirement

Digest of an Address
By Harry J. Johnson, M.D., Medical Director
Of The Life Extension Examiners, New York, N.Y.

■ EVERY day of the year a thousand more people reach the age of 65 and the Executives are well represented in this group. Our actuarial friends tell us that each of these people can expect to live another twelve years. With all this life ahead of us, what are we going to do with it? The concept of retirement from "working for money" is quite new. At the beginning of this century people worked so long as they were able. Retirement was for the very few wealthy and for those who were physically disabled. In 1900 when the average work week was over fifty hours and when there were few mechanical aids to make labor easier, seventy per cent of all men over 65 years were employed. Today, with all of our lifting machines, conveyor belts, and other labor saving devices and a forty hour work week, better general health and a greater life expectancy, only forty per cent are gainfully employed.

Executive retirement must be considered from two points of view, that of management and that of the individual executive. Management must decide whether or not to make retirement compulsory and at what age. If we are to consider as the primary reason for retirement the ability of the individual executive to continue to do his work efficiently then the age of 65 is most unrealistic for compulsory retirement. The average executive at age 65 years is just as competent or incompetent as he was at age 60 or 55. If ability to carry on is to be the yardstick, then age 70 would be more realistic. If, however, the compulsory 65-year limit is set to give management a chance to get rid of "dead wood" and to give younger men a greater incentive then the present accepted 65 year retirement age should be continued.

Let us for a moment consider the non-executive lower income or hourly wage group. To arbitrarily discharge these employees when they reach 65 years of age is ill-advised. Most of these employees with lower incomes are physically well and would prefer to continue to work. Consider this in terms of our 14 million "over 65" and industry's urgent need for experienced help. Does it make sense for industry to discharge an experienced man of 65 and then look for an inexperienced replacement? How better can we solve the pressing problem of providing jobs for our senior citizens who need the income and who are able to and want to work than to keep them at their old jobs. If industry would project the compulsory retirement age to 70 years for the hourly worker and the lower salaried group it would recapture a segment of the work force that would be as productive as any other group.

Two changes in our social security laws would be most helpful to these older people. First, the $100 maximum allowed monthly earnings should be revised. This amount is most unrealistic today. An increase to at least $200 would be in order to compensate for the lower purchasing power of today's dollar. Another change in the social security law would be of great help. At the present time women who retire at age 62 and elect to take social security benefits receive only 80% of what they would be entitled to at age 65. A change in the law is indicated which would apply the same actuarial principle so that those who elect to continue to work and contribute until age 70 would receive a proportionately greater benefit than they would have received had they retired at 65. If industry would permit employees to work until 70 and if social security benefits were to be actuarially adjusted to this age, much happiness would be brought to millions. This would help considerably to lessen our very real social-economic problem of what to do for the ever increasing segment of our non-productive ageing population.

Now let us get back to the executive and discuss this from his very personal point of view. Everyone has heard the story of poor old Smith who worked 45 years for the same company, his whole life was centered around his job and then he was retired. Everyone just knew what would happen. Sure enough, six months later he was dead. People do not die because they have been retired. Such stories are utter nonsense yet, we say, there must be some basis for it. The answer is quite obvious—everyone who retires, of necessity, must die after retirement.

For most people retirement is a very happy time of life. In a study of fifteen hundred retired men completed by us, we found that 89% were happy, busy people. Only 11% were bored. Yet only 47% of this group had looked forward to retirement with pleasure. When we consider our Executives or the group with $5,000 or more of income, after retirement, 94% were happy and busy. Only 8% of these Executives with retirement incomes of $5,000 or more preferred to be back at their old jobs. 92% wanted no part of their previous work and much pre-

ferred to continue in their new retired life.

The purpose of retirement planning for an executive is to assure the maximum happiness for the greatest number. There are just three primary factors that are essential to happiness—health, money and attitude. How can we influence each of these favorably? We will all agree that health is absolutely essential to the enjoyment of life. The condition of our health after retirement to a large degree reflects the health habits we have developed throughout life. For all of us as we grow older the incidence of organic disease rises. In a study of health examination reports of five thousand executives recently completed by the Life Extension we found that those who were under forty years of age showed only 26% to be in sub-standard health. This per cent steadily increased so that when we reached the group 60 years old and past we found 73% to be in the sub-standard health group. There is no doubt that our habits of living contribute considerably to the rate of breakdown of our bodies. The amount of sleep we get, the exercise we take, the food we eat, the weight we carry, the amount of worry and tension we are exposed to, all leave their mark and influence the over-all condition called health or lack of it. A good rule for everyone especially those over forty years of age is to have an annual health examination preferably in the month of their birthday. The examining doctor will discuss your habits of living and suggest what changes are indicated. Industry would do well to make such examinations available to its employees.

If on retirement a person has no disabling disease the next most important consideration is money. We have always heard that money cannot buy happiness. A great many retired people would question this. The outstanding cause of unhappiness in retired life is insufficient funds. The importance of an adequate retirement income cannot be emphasized too much.

Now we come to third and most talked about aspect of retirement planning. What can we do to psychologically help prepare our retiree to take the hurdle from active business to inactive retirement. Management seems convinced that there is a serious problem in this area that needs attention. From our experience with retired people it is our feeling that this so called "problem" is somewhat exaggerated in the minds of the *un*retired. As we study the lives of retired men we are amazed to find no significant psychological shock experienced during the transition from before to after. The economic adjustment to a reduced income is the real problem with which to contend. Most retired people become quite busy very promptly after retirement and they soon settle down to a different but very satisfactory routine of life.

Retirement counseling services, in my opinion, are of limited value. Most of them are made available to employees after age 60. Obviously little can be accomplished, in the few remaining years, so far as the two primary considerations are concerned —health and money and too often the counsellors emphasize the unhappy aspects of retirement in the hope of demonstrating what to avoid.

Many of the men assigned to counseling services are either young or middle aged. These uninitiated counsellors are not unlike the maiden aunt, who advised the prospective young mother regarding the problems of child bearing.

Most people who retire of their own choosing do not want any counseling. Their plans are well formulated and they know what they are going to do. The majority of those who are forced to retire have economic considerations that eclipse all others and consequently their attention is focused on this. Industry with all good intentions may actually help create a problem in the minds of the retiree by calling future unhappy situations to his attention without offering a satisfactory solution. If all counseling was optimistic and cheerful and each employee was made to feel that retirement was a reward for services rendered and not a sentence for age, it would be much more helpful. Ignorance can sometimes be bliss, and not knowing what to worry about sometimes results in a happy absence of fear. This is especially true since we know from experience that the great majority of retired people are happy and busy and those aspects of retired life which they feared and worried about were really no problems at all. . . .

Even though the majority of people about to be retired neither need nor want counsel there are some who do and can benefit from it. It would seem to me that the employer is not the one to render the service. It should be done by an outside agency. There could be considerable embarrassment and reluctance on the part of the employee to freely discuss his personal situation with someone in the company. Furthermore, after leaving the company, most men would hesitate to return for help.

It would seem to me that a very worth while pre-retirement and post-retirement counseling service, could be set up by an organization such as the Manufacturers Association of Connecticut to serve its subscribing companies. This service could be quite comprehensive with specialists available during the entire retired life of the group serviced to discuss various aspects of retirement both economic and psychological. Many of the counselors could be men who have actually been retired and brought back for counselling work. The services would be impersonal so far as the company is concerned, yet very personal to the individual. A good service could be provided in complete confidence at relatively little cost to each participating company.

In our retirement planning let us not concentrate nor over-emphasize all the possible unhappy problems ahead. Let us, instead, encourage each person to plan in the same way as he would for a pleasant extended vacation, with an atmosphere of optimism and cheerfulness and happy anticipation so that retirement when it comes is really a reward for services rendered and not a sentence because of age.

Is Tension an Occupational Hazard for the Executive?

Digest of an Address
By William P. Shepard, M.D., Second Vice President
Metropolitan Life Insurance Company, New York, N.Y.

■ IT is my considered opinion that the answer to this title question is "no".

Some of the reasons for this opinion are:

American white males now have a life expectation at birth of nearly 70 years.

Mortality of white males in the United States since 1930 shows a substantial decrease from middle age and beyond. At ages 45-54, mortality has decreased 22 per cent, at ages 55-64, the decrease is 10 per cent, at ages 65-74, the decrease is 13 per cent, and even at ages over 75 the decrease is 12 per cent.

It is often said and some believe that the so-called stress disorders are more common among executives. According to studies made of Du Pont executives compared with all other employees, this is not true with the possible exception of peptic ulcer. They state that "in general with the exception of

the possible increased prevalence of peptic ulcers, there is no evidence in these data that executives of the Du Pont Company are in any worse state of health than other employees of approximately the same age." As a matter of fact, there is some evidence which might indicate that executives are "superior" both mentally and physically.

In a study of executives' characteristics and personalities by William H. Whyte in FORTUNE, January 1954, he found that executives work as hard as ever despite labor's reduction in number of hours and increase in amount of pay. They do this in spite of high income taxes which might be expected to reduce incentive. They are imbued with the spirit of competition, they seek self-expression, they readily assume responsibility, and they seek prestige. Thus it may well be that executives, especially the successful ones, are "a different breed of cats" from others.

Had the question been asked "Is tension an occupational hazard?", my answer would be that it may be. Whether it is or not, depends on the individual's attitude toward his work. One man's meat is another's poison. Why does one man get an ulcer, another cause it? According to one medical authority, the majority of stress disorders are due to supervisors. Why is it that added responsibility is a joyous challenge to one, and an overwhelming, damaging worry to another?

The answer to these questions seems to rest upon the degree of fear or insecurity felt, usually unconsciously, by the individual. One says, "My doctor says to take it easy; if I do there will be another man in my place."

The point here is that there are great variations among humans in ability to withstand stress. Probably little can be done to increase such abilities except to suggest that each individual should know his own capacity and avoid exceeding it.

Stevenson says, "Anxiety and tension are essential functions of living, just as hunger and thirst are. Without the experience of anxiety we would not be prepared to avoid or overcome situations harmful to ourselves and our families. Without the ability to tense ourselves we would fall short in emergencies, often to the peril of our lives.

"Tension serves, too, as a stimulating source of excitement. It is to gain this kind of pleasure that we play or watch competitive games, pursue adventurous outdoor recreation, and follow drama on stage, screen or television.

"Primarily, tensions and anxiety are our self-protective reactions when we are confronted by threats to our safety, well-being, happiness, and self-esteem —threats like illness, accidents, violence, financial trouble, trouble on the job, trouble in family relations.

"We tend erroneously to think of such dangers, and the tensions they arouse, as something new. While it is true that we live today under pressure of intense competition, economic uncertainty and the possibility of total war, we must remember that our ancestors faced other perils of equal magnitude—famine, pestilence, attack by savages, as well as full-scale war."

To be sure, life today is more complex and more conflicting demands are made upon us. Some of us are more sensitive to these conflicts than others. Good mental health, that is, sound emotional stability, seems to be the key to the problem. The executive who knows his capacity, learns to pace his work, to change pace periodically, to delegate responsibility, to free himself of unconscious fears and to recognize the futility of fear and insecurity is the one who will find life and his duties a joyous challenge and a high adventure. He is the one who learns to take the inevitable blows of frustration in any job in his stride and who pauses to enjoy his satisfaction with the inevitable successes. He accepts tensions instead of fearing them. He realizes that his best work may be done when under tension, but he realizes that when the job is done, it is time to relax and store his batteries for the next bout.

In summary, tension is not an occupational hazard peculiar to executvies. It is a hazard, occupational or otherwise, to those who are emotionally unstable or poorly adjusted to the realities of life. When one needs help, help will be found in a well-operated industrial medical program, or from his private physician or perhaps even from a psychiatrist in the more aggravated cases. The man who knows his capacity and its limitations and adjusts to them will never be hurt by work per se or by the tensions which it creates.

Physical Examinations for "Executives"

Digest of an Address
By Leo Wade, M.D., Medical Director,
The Esso Standard Oil Company, New York, N.Y.

■ THREE kinds of activity are basic in any adequate occupational health program: first, the elimination or control of potential enviromental hazards; second, the proper placement of workers in jobs compatible with their health resources; and, third, the periodic medical examination of workers to assure their continued good health. The reasonableness and importance of these activities are obvious to almost everyone wherever the possibility of injury of the worker from toxic substances or trauma exists, and wherever manual dexterity or sheer physical strength are required to perform the assigned tasks. Implementation and administration of such a program is not difficult since most of the hazards and the resultant disturbances of bodily function are well documented.

Increasingly large numbers of workers, and this includes management and executive personnel, work in optimally ventilated lighted, and furnished offices where they come in contact with nothing more toxic than paper, and are rarely called upon to exert any more physical effort than that required to carry an attaché case. What, if any, are the occupational hazards encountered by such workers? What are the health factors to be considered in their proper placement? What evidences of health impairment should one seek on periodic medical checkups? Time will not permit a detailed discussion of these several questions. So far as I personally am concerned, however, answers to these questions are not available. If there are health hazards in the "executive" enviroment, then the so-called "executive" health examination is a legimate part of occupational medicine. If there are no such health hazards, then the "executive" health examination, particularly when it is not job-related, tends to become a "fringe" benefit. It is so conceived by many managers and physicians at this time.

Something akin to an industrial hygiene survey of the working environment of management is needed. Such a survey would undoubtedly center about interpersonal relations, competition within groups, ambitions, anxieties, etc. Techniques, properly trained personnel, and opportunities for such surveys are not available. It is necessary, therefore, to look to careful studies of the health status, morbidity and mortality of management personnel for some clues. A number of efforts in this direction have been made, but all such studies seem inconclusive for a number of reasons.

There is no agreement, for example, as to who is to be included in a survey

(Continued on page 59)

LET'S LOOK AT TOMORROW

Digest of an Address at The Afternoon Session
By LOUIS P. SHANNON, Manager
Extension Division, E. I. du Pont de Nemours & Company

■ THE first question that we, as free men, ought to ask ourselves about tomorrow is, "What kind of tomorrow do we want?" The implications of this question are two-fold. As free men, we have not only a choice, but a responsibility, concerning tomorrow! I am quite sure that most of us here envision a better tomorrow. Further, most of us have learned, in the very process of living, that progress doesn't just happen. Only the pathetically deluded believe that progress is automatic. Progress must be created by people. The adoption of the philosophy that somehow we are entitled to a better tomorrow without doing anything to earn or achieve it, would be fatal to America as a great nation within a generation.

The role of science and industrial technology is vital to progress because it has to do not only with the production and distribution of goods necessary to our physical comfort, but also with the processes that forge the weapons which help assure our existence as a free people. The words "help assure" were used advisedly. Freedom cannot be defended solely by physical weapons. Without public understanding of its spiritual and ideological foundations, freedom soon ceases to exist.

In spite of the importance of a dynamic business system both as a creator of progress and as a physical bulwark of freedom's strength, I can think of no other area about which misunderstanding is so widespread. This is paradoxical indeed because the world of tomorrow poses many problems, and if certain major ones are to be solved at all, they will have to be solved by the team effort of science and industry.

Let us look at some trends, which, if one were predisposed to pessimism, could be called problems. First, our population is growing at a rate which has been described as explosive. In my own lifetime, the population of the United States has more than doubled, and the rate of growth is still accelerating. If you were to read in tomorrow's paper that within the next 20 years the United States would receive as immigrants all of the people now living in Canada, Mexico, Norway, Sweden and Denmark, you'd be mildly shocked. You'd ask a lot of questions. Where will all of these

LOUIS P. SHANNON

people live? Where can they find jobs? Where will the children go to school? What about medical attention? And a very practical question, of course, would be, "Where will they find parking spaces?" Such actual immigration is not contemplated, but our own population growth will probably give that same increase!

A second trend, which compounds the problems created by the first, is that a decreasing portion of the population engages in productive work. People begin work later in life, and they retire earlier than formerly. The work force is shrinking from both ends.

A third factor is that everyone thinks in terms of an increased standard of living. We all want more and better tomorrows than we had today.

Add to this a fourth, and very important factor. We have depleted, almost to exhaustion, many of the easily available raw materials with which we were once endowed.

To summarize, we can only say that tomorrow brings the problem of a shrinking work force with an ever diminishing supply of raw materials trying to provide an ever rising standard of living for an ever increasing population. This is indeed a very big problem. And big problems require big solutions, just as big rivers require big bridges. Society is never served by inadequate solutions to its problems, nor by bridges that end in mid-stream. More than ever before society will need the tireless efforts of capable men and women, working individually, working corporately.

Big individuals will be required—big in their abilities, sense of responsibility, and dedication to purpose. Many problems are of such scope as to require corporate or team effort. Team-size problems do not minimize, but enhance, the need for competent individuals.

The trail of progress has been blazed by the creativity of those who dared to differ, not those who cowed to conform. To substitute for one's sense of personal responsibility the abstraction that somehow "society owes" is a fraud and a deception beneath the dignity of free men.

Perhaps, when the history of this century is written, it may list among the great discoveries that of Industrial Teamwork! Men can achieve corporately things which are impossible for an individual to achieve, no matter how gifted he might be. Modern management, by proper selection, can create a veritable superman of ability. Emphasis remains, however, on the competency and initiative of the individuals constituting the team. Aggregations of mediocrity produce only more mediocrity.

The American public now takes for granted something that would make headlines in most of the rest of the world. I refer to the progress orientation of our industrial system. We all seek not only to be in business tomorrow, but we hope as a result of today's intelligent action, to be able tomorrow to produce both more and better for less.

This industrial philosophy, if we are permitted to pursue it, will solve the production problems in the difficult world of tomorrow. We will fail, however, if we permit further encroachment on three fundamental freedoms—freedom of the individual to achieve success in his own right, freedom of men to team their talents to tackle the difficult tasks, and freedom of the people to pool their capital, without fear of confiscation, to take the big and long-term risks.

As I survey the magnitude of tomorrow's problems, my fear is not that individual and corporate effort will be too big, but that they will be too little!

In conclusion, may I point out an incomprehensible paradox! In the failure of millions of Americans to understand the fundamentals of our country's strength lie the seeds of potential national disaster. Principles, to survive in a democracy, have to be understood, otherwise the people can unwittingly destroy them!

ADDRESS OF WELCOME

By ABRAHAM RIBICOFF
Governor of Connecticut
A Digest

■ I AM always glad to come to your meetings. I have found them interesting and most stimulating.

The one thing that you find if you are going to be a good Governor is that you never can please all the people in the State of Connecticut, and that you would be very foolish if you tried, because there are many stands that you have to take and many things that you do for the general welfare of the people of the state which many groups may not agree with.

I want to say this about the manufacturers of Connecticut. While there are some stands that you take as a group with which I do not agree, and which I do not believe are always in the best interests of all the people of the State of Connecticut, I will say that I know of no group in the State that asks as little for themselves as you.

I find that manufacturers are more than willing to do their share in paying the cost of government. You are very realistic and realize that there are certain basic costs to be borne to run the State as it expands, and you do not come running to Hartford asking for a cut in taxes. You are very happy to have taxes stabilized and to have our State government run in such a way as to keep them stabilized. You do not try to have taxes cut to such a point that the State would have to close up shop and not be able to operate for the benefit of all the people.

In this respect, you are different than other substantial business groups in the State of Connecticut which have not taken the same attitude. I want to acknowledge this publicly. I take my hat off to the manufacturers of Connecticut for this realistic approach and this real sense of responsibility as citizens toward the fulfillment of your obligations to all the people of the State of Connecticut.

Nowhere else in the world is there such a concentration of diversified industrial know-how as within the borders of Connecticut. . . . Connecticut is the leading manufacturing state in the U. S. A. in proportion to population, and this fact should be brought home to our own people and to people everywhere.

The many products of our industries are known and used around the world, but perhaps the most important product of Connecticut industry is the manufacturing of new jobs. During the last 20 years Connecticut industry has created 175,000 new manufacturing jobs—an increase of 70 percent—plus the thousands of jobs in transportation and other trades which service industry.

Connecticut is the fastest growing state in the Northeast. The basic reason for our state's population growth is that we are able to provide employment opportunities, a fact which encourages the in-migration of workers from surrounding states.

More than 45 percent of our population gain during the last 10 years came from persons moving into Connecticut. The present and continued growth of Connecticut rests upon the sound financial condition and the efficient operations of our existing manufacturing establishments.

The celebration of Connecticut Industry Week would provide an opportunity to tell this story community by community throughout Connecticut. It is a significant story, for manufacturing industry is the backbone of Connecticut, and you manufacturers may take pride in this contribution to the economy.

Our continued rapid growth in manufacturing may be attributed in large part to our increasing participation in the metalworking industries, such as electrical machinery, electronics, transportation equipment and instruments, especially in the aircraft industry. And today Connecticut industry looks to the future in the nuclear field.

It is too easy to take for granted those things which are close to us. Connecticut Industry Week would provide an appropriate time for persons in each community to see industry in operation, for tours of industrial plants, for product displays by retailers, for participation by schools, churches, service clubs, labor unions, chambers of commerce, manufacturers associations, newspapers, radio and television stations, and all other groups within the community.

Through the Connecticut Development Commission and other agencies, I can assure you that the State of Connecticut stands ready to cooperate, but the desire and the will and the follow through which would make Connecticut Industry Week a success must come from the manufacturers and from the local communities. It is in the towns and cities of the state that the story will be told, and it will have little meaning unless people are involved and interested locally.

GOVERNOR RIBICOFF

During this year of 1957 approximately three billion dollars worth of value will be added to products manufactured in 5400 industrial establishments in Connecticut. This is the huge sum which will be added to the cost of purchased fuel and materials by the talents of Connecticut's industrial management and the skills of our workers.

Local committees preparing for Connecticut Industry Week should know that industry joins with all of us in paying a fair share of taxes in Connecticut. While no breakdowns are available for total tax payments by manufacturers alone, approximately one-third of all taxes—local, state and federal—are paid by business and industry combined in Connecticut.

For those of you who are interested in more exact figures, business and industry pay about one-third of local town and city property taxes, approximately 45 percent of all state taxes and close to 35 percent of all federal taxes paid in Connecticut.

Connecticut has always been an important industrial state because of the character of our people—hard working, productive, resourceful, inventive.

We have built a diversified economy and been responsible for more inventions per capita since the opening of the U. S. Patent Office than any other state.

In short, we have made Connecticut a desirable place in which to live—to work—to play—and to bring up our families.

This is all part of the Connecticut story. And the Connecticut story is built on the foundation of our manufacturing industry. It's a story worth telling to the whole world. You gentlemen in this room can make this story come alive by making Connecticut Industry Week a success. The benefits will be great for your future and for the industrial future of Connecticut.

THE PRESIDENT'S REPORT*

Part 1 - Association Activities

By HARRISON FULLER

■ ONCE each year it is appropriate that the President of your Association should give members an accounting of its work. It is fitting that we restate at this annual meeting the twin objectives of the Association developed by our Public Relations Committee and Board of Directors and widely distributed in printed form in June 1955.

The first objective is to help Connecticut manufacturers operate in a profitable, job-making economic climate for the benefit of their shareholders, their employees, their customers and the people of our state and nation.

The second objective is to help Connecticut manufacturers develop a full understanding of their broadening social and economic responsibilities to the public; and to maintain effective channels of communication to help the public, in turn, to understand industry's contribution to the economic and social welfare of the people of the state.

It is against this backdrop of "reason for being in business" that I give you a few of the highlights of our activities during the past year:

1957 General Assembly

In odd-numbered years the President's Report must include some comments on the activity of the Connecticut General Assembly. In spite of the continuing efforts of some groups to have the legislature meet annually, it is our hope that the citizens of Connecticut will again turn down the suggestion, and that our legislative comments will continue to be confined to odd-numbered years. Yearly sessions would be not only more costly but also would create more uncertainty for business. Such uncertainties injure rather than help the growth pattern of job-producing enterprise, which must remain healthy if good jobs are to be created for our rapidly growing population, estimated by U. S. News & World Report to reach 3,122,000 by 1975.

HARRISON FULLER

You have all received our Final Report of the 1957 session of the General Assembly. You were also kept abreast of developments during its progress. Therefore, I shall not dwell in detail on specific happenings or results. Generally speaking, the 1957 legislative leaders appeared to have no desire to enact legislation which would seriously cripple industry, but they were equally reluctant to take any affirmative steps that might be considered as encouragement to industry. In a highly industrialized state like Connecticut, such an attitude is disappointing. Certainly it is not the type of encouragement for the retention or expansion of industry that we feel the workers of Connecticut deserve.

The continuing efforts of state departments and agencies further to regulate industry were, for the most part, rejected. However, we may expect there will be no diminution of such efforts in subsequent sessions. Furthermore, the financial outlook of the state is not exactly encouraging. Continued efforts by state agencies to expand their powers and further regulate business will not only hamper industrial progress, but will also add to our tax burden.

We look forward to more encouraging developments for which your Association is continually working. However, the final attainment of an improved economic climate in Connecticut will depend largely on the quality and quantity of the help which leaders of industry and business, labor, education, the clergy and other groups in the state are willing to give to make this state more attractive to enterprise —a better place in which to enjoy a richer life.

Industrial Relations

The everyday relations between employers and their employees continues to be a field in which the Association renders a wide variety of services. For both organized and unorganized plants we have all types of information concerning area or state-wide practices and policies which we are continuously giving to our members, both large and small, in response to their many requests for advice and information on such topics. Frequently a member merely wishes to discuss a certain troublesome situation or a novel request. In such instances, the Association can render service of great value by telling him of the experiences, both good and bad, of other members in handling similar problems.

Our file of union agreements is continuing to increase in number and our analysis of contract terms and provisions is kept up to date for your assistance. The list of arbitrators and their qualifications also continues to grow as new arbitrators enter the field. Current information on the decisions and attitudes of arbitrators, and the reaction of those who use them, is also available to members. In fact we have helped many of our members to avert disastrous arbitration decisions by pointing out the weaknesses of some arbitrators proposed to them.

Arbitration decisions are also reported monthly in CONNECTICUT INDUSTRY under the heading "How Would You Decide?". This department has developed the guideposts we intended for management use in organized and unorganized companies, regardless of size.

The Industrial Relations Committee has continued to help in the analysis of various problems and to render most valuable assistance and advice. It is now reviewing the form of the statewide survey of employment practices started last year, with a view to increasing the value and simplifying the

** Only a few highlights of association activities were included in President Fuller's verbal report at the annual meeting—hence his full account of activities is published as Part I. Part II, which follows, includes only that portion of President Fuller's report dealing with "the threat of creeping inflation" which he included in his spoken address.*

form of the questionnaire. The value of this survey should be increased by repetition, which will show the development of trends or stabilization of certain practices.

Taxation

During the past year, until March when Congressman Antoni Sadlak introduced his now famous bill (H.R. 6452) to provide for scheduled income tax reductions over the next five to nine years, your Association has continued to publicize and fight for its five-year plan for the reduction of the progressive element in the federal income tax structure. Since the general objectives of the Sadlak bill were essentially the same as the Association's earlier plan, our support was shifted to the Sadlak bill. Since then we, together with hundreds of other groups throughout the country, have given this bill much publicity. We propose to continue to work towards much needed reforms in the federal income tax rates.

During the year we completed our second state-by-state survey among member companies with plants in more than one state, to ascertain the relative tax burden in Connecticut as compared to other states. Our survey, in which twenty-seven member companies having plants in some thirty-five states participated, showed that in 1956 Connecticut ranked eighth in the order of those having the lightest tax burden in relation to assets among the ten principal competing states. A significant fact developed by the survey was that in the five-year interval between 1951 when a similar survey was undertaken, and 1956, Connecticut had slipped from sixth to eighth position. The results of our survey were brought to the attention of the members of the General Assembly this year.

The Association's Taxation Committee worked diligently on a tax bill sponsored by the Tax Commissioner dealing primarily with administrative and technical features of the corporation business tax. As a result of the committee's work, the General Assembly enacted a bill which was mutually satisfactory to the Association and to the Tax Department. Before passage, we were successful in eliminating from the bill an undesirable change in the allocation formula for corporations doing business in more than one state. The Taxation Committee and staff members also helped to draft a satisfactory bill regulating assessment practices of local assessors in such a way as to eliminate the confusion resulting from a recent State Supreme Court opinion.

In addition to these special projects, our Taxation Department has informed member companies about all pertinent changes in business tax laws and regulations, both federal and state, and has also advised them each week about the status of all federal legislation affecting industry. Frequently, too, these laws and regulations are interpreted by telephone and letter in response to member requests.

Group Insurance

Our Group Life Insurance plan has enjoyed its greatest year to date. More people have been added, more companies added and more dollar volume than any previous year in its 13-year history. At the present time 890 member companies cover 21,600 executive and supervisory employees for 164 million dollars of insurance. During the contract year 1956-57, 236 members entered the plan with 4,000 employees and 30 million in coverage. An additional 14 million dollars of coverage resulted from increases in amounts on those already insured. This one year's growth exceeds the total of the first nine years of the plan's existence. This year was also the greatest year in benefits paid to beneficiaries and in refunds to members. Claims amounted to $835,000 and the retroactive rate credit refunds distributed last fall totalled $865,000.

As of June 1, 1957, two new insurance classes were added, raising the maximum for which an individual may be insured to $20,000. This schedule was offered on an optional basis and 95% of the insured member companies subscribed.

Our three other group plans—Major Medical, Supplemental Hospitalization and Sickness and Accident coverage, have also experienced substantial growth, although by comparison, not as dramatic as the Life plan.

The Major Medical plan was liberalized and improved by doubling the maximum claim allowance from $5,000 to $10,000 and by reducing the maximum out-of-pocket cash deductible to $250. This was done without increasing the rates.

Health and Safety

The Health and Safety Committee, composed of twelve physicians and laymen, which was organized last year to advise the Association's membership on the best known health and safety practices, has continued its series of bulletins on various topics concerning industrial health and accident prevention. A total of eleven bulletins—five last year and six this year—have been prepared and distributed to members—each one having been prepared by an expert in the field of his topic. This bulletin information should be of great value to smaller members who frequently do not have ready access to technical information of this type. The work of the Health and Safety Committee is executed by the Association's Insurance Department.

Transportation and Foreign Trade

The pace of freight rate increase demands by the motor carrier industry slacked off slightly during the past year. We have consistently demanded that any upward adjustment of freight rates be justified by detailed cost figures and operations data. We have also taken every opportunity to press our attack on the overriding transportation problem of this area: The surplus of motor common carriers in the field. We are a party of record in opposition to the inflationary rail freight rate increases now before the Interstate Commerce Commission. In that proceeding we have not only opposed the destructive percentage method of increasing freight rates, but have developed and put before the Interstate Commerce Commission an alternative formula which, if adopted, would benefit our members in their efforts to compete in their more distant markets.

In addition, our Transportation Department has serviced hundreds of requests for freight rates, classification and many other types of transportation information.

The volume of Connecticut products flowing into foreign markets has increased substantially throughout the past year with a consequent increase in requests for advice on foreign trade problems and guidance in the fields of export licensing and other procedures. Our translation service has also continued to enjoy heavy patronage.

Both the Transportation and Foreign Trade Committees have continued to meet monthly throughout the year, giving valuable advice and assistance to members and guidance for the overall activities of the Association in the Transportation and Foreign Trade fields.

Industrial Development

Approximately 50% of the time of the staff involved in this department is spent on publishing and financing through advertising the Association's monthly publication, CONNECTICUT INDUSTRY. Now in its 35th year of continuous monthly publication, CONNECTICUT INDUSTRY has grown from a 16-page publication to one averaging 72 pages per month—now second in size to any comparable type magazine in the United States. It is one of the most effective mediums of communication with members and of keeping thousands of other non-mem-

bers informed on facts and trends in industry of interest and value to them. Through its news columns it reflects current news and developments, bringing profitable results to hundreds of companies publicized each year, and valuable information to readers desiring information about industry. Through articles it brings into clear focus a wide variety of facts valuable to management, ranging from industry "success" stories to a wide range of articles dealing with problem-solving techniques in industrial relations, public relations, marketing, accounting and production.

Because of the wide variety of its editorial menu, CONNECTICUT INDUSTRY attracts a larger group of readers among top, middle and lower management men who dictate purchasing policy than most single purpose magazines. Thus it attracts an evergrowing volume of advertising which for the first eight months of the 1956-57 fiscal year averaged around $3,500 per month—the largest in its history. This advertising volume is necessary to retain the present size and quality of the magazine in the face of rising printing and other publishing charges. Because the bulk of its circulation of around 3,100 copies per month is of the organization type, where anywhere from three to five or more persons read the magazine each month, its readership, based on spot checks, is estimated at from ten to fifteen thousand persons.

Other services performed by this department include: Location of sources of new products, mailing lists, factory space, machinery, market data, sub-contract work and facilities, information on patented products available for manufacture, working capital, going business for sale, and many more of a miscellaneous nature. This department also cooperates with many outside groups such as the State Federation of Women's Clubs, for which it has been arranging "Industry Day" tours every year since 1949, the latest being held at the Greist Manufacturing Company last October. The staff member in charge of this department also has corporate duties as Secretary of the Association.

Public Relations

Starting in 1954 our Public Relations Department has continued to expand its activities each year in support of the attainment of the Association's objectives.

During the past year newspaper clippings of Association publicity, already collected in the headquarters office, would comprise approximately 22 full pages of space, including feature stories published by every Sunday newspaper in the state. Television and radio stations have broadcast many Association releases and representatives of the Association have appeared personally on TV programs.

Five new Association directors were elected at the business session. Shown here with President Fuller are John W. Douglas, president, Republic Foil & Metal Mills, Inc., Danbury; Lucius S. Rowe, president, The Southern New England Telephone Co., New Haven; Harold Leever, president, MacDermid, Inc., Waterbury; Jack T. F. Bitter, president, treasurer, The Parker-Hartford Corporation, Hartford, and Mr. Fuller. J. Arthur Atwood, 3rd, president, Wauregan Mills, Inc., Wauregan, was not present.

Public relations bulletins and a public relations column published in CONNECTICUT INDUSTRY every month have sought to detail suggestions helpful to members in building a better PR program, or launching one if no formal program has been started.

One of the most time-consuming projects of the PR Department this year has been the enlargement of the Speakers Bureau from around 40 to 70 speakers and the booking of over 50 speaking engagements with a wide variety of service clubs, church clubs, high schools and colleges, business associations and special meetings. These speakers are doing a fine job in creating a better understanding of industry.

The distribution by the Association of more than 400 Bibles to Connecticut industries for their office lobbies brought considerable favorable state and national comment in the press.

"What Is Your Future In Connecticut?", a tax pamphlet in popular style, was compiled and distributed to some 4,800 persons, including a substantial list of opinion leaders; and still another pamphlet entitled "Freedom or Compulsion" was compiled with some 10,000 copies being distributed.

The most ambitious single effort of the PR Department this year, requiring several months to prepare in final form and sell to members at cost in sufficient volume, was the 20-page color illustrated brochure entitled "There's a New Life for You in Connecticut." Some 40,000 of this brochure, designed to sell out-of-state skilled people on job, cultural and recreational opportunities in Connecticut have been ordered by 40 companies. Some of these companies will distribute the brochure through employees, employment and travel agencies to skilled people in other states, while others will distribute them to their employees with a view of re-emphasizing the advantages of living and working in Connecticut. Your Association will also distribute copies. This brochure forms the keystone of a two-year program to recruit more out-of-state skilled workers to live and work in Connecticut. It will be implemented by press conferences that should result in state and national publicity and by a speakers task force of businessmen we hope to recruit to visit high schools and colleges where they would seek to acquaint students with the vast opportunities for a bright future working in Connecticut.

Field Work

Again this year, as in the past two years, our field representative has done an outstanding job. In fact he attained an all-time record by signing up 228 new members, as compared with last year's record of 213 new member applications. With these new additions our membership now stands at an all-time high of 1,750.

In addition to the large number of calls required to sign up so many new members, our field representative also made over 600 calls upon members to learn first hand about member problems which might be solved, or part-

ially so, by members of the Association staff.

General

There is every indication that the Association continues to fill a definite need in the industrial life of Connecticut. Those of you who attended the business session this afternoon know that the Association is well financed in spite of the fact that there has been no general increase of dues since 1928. The headquarters office building is well maintained and the office equipment and facilities are modern and efficient.

Effective July 1 of this year the Association's pension plan was liberalized and formalized. It now compares favorably with pension plans that are in effect generally in manufacturing industries.

Due in considerable measure to the additional work involved in the administration of our four insurance plans, our staff has grown in recent years and now numbers twenty-one, including eight members of the Administrative Staff and thirteen on the Departmental Staff.

Part II—The Threat of Creeping Inflation

■ IF I may claim your attention for another few minutes, I would like to speak to you briefly about a subject I regard as of paramount importance. It appears, to use the widely current phrase, that business is "leveling off." It seems quite clear to me that, for the moment at least, the bloom has gone off the boom we have been enjoying for the last few years. If this is so, perhaps we are going to have to cope with the facts of economic life sooner than we had thought.

How are we going to meet the insidious problem of the "creeping inflation" that has been built into the wage structures of so many companies, large and small. Use of the device of annual wage increases, written into long term contracts, is spreading rapidly. Wage increases have outrun increases in productivity. How can we check a trend whose basic assumption is that sales, and profits, and the productivity of labor, and wages, can go nowhere but up?

It was the notion that commodity prices could go nowhere but up that brought about the collapse in such prices after World War I. It was the concept that stock prices could go only up that precipitated the disaster of 1929. After each of these unhappy affairs, all of us, as a nation, took thought to prevent a recurrence of that particular kind of inflation. But now we have another procession of events, steadily gaining in momentum, that can only lead to disaster because it, too, is based on an absurdly false assumption. What can we, as operators of industrial enterprises and employers of labor, do to help bring it to a halt?

If it is established public policy to confer monopoly power on "big labor" —and it is—with what weapons are we left?

In the first place, disagreeing violently with such public policy, I think we must continue and intensify our battle to bring about such a broadening of public understanding as to compel a curbing of union monopoly and a restoration of independence to workers and equality to the bargaining table. Unfortunately, public policy changes slowly, with legislation and court decisions following well behind.

If you have been thinking that I have been leading up to a neat solution of the problem now before us all, I am sorry to disappoint you. The answer will come only with public understanding of the forces that are now at work, and of the unchangeable character of certain basic economic laws.

We must first understand the problem fully ourselves, and then we must think about it and talk about it, particularly to our own employees and others who look to us for leadership. Fortunately we have plenty of company in this campaign of education, including most of the economists and the best brains of government and business. Even Walter Reuther is alarmed at the prospect, and his effort to put the blame for the whole busi-

(Continued on page 45)

**This was last portion of President Fuller's address at the annual meeting. The first portion, giving a few highlights of association activities, has been included in his more detailed report in Part I, but in different words.*

Guests are shown with Association officers prior to the evening session. (left to right) N. W. Ford, executive vice president; Harvey L. Spaunburg, vice president; Rev. C. Lawson Willard, Jr.; President Harrison Fuller; Governor Ribicoff, Dr. Walter H. Judd and John Coolidge, treasurer.

THE IMPACT OF WORLD EVENTS ON AMERICAN INDUSTRY

Digest of an Address at an Evening Session
By Dr. Walter H. Judd
Congressman from Minnesota and Delegate to The United Nations

Editor's Note—This is Dr. Judd's own edited version of the principal highlights of his address which held the audience in wrapt attention for slightly more than an hour at the evening session of the Association's Annual Meeting, Yale Dining Hall, Yale University, New Haven. Because Dr. Judd spelled out so clearly the complex Kremlin design to destroy our freedoms and the methods being used and available to us to thwart their plans, this address should be heard by every American. His entire address (several times the length of this edited version) was tape recorded and may be made available to industry and civic groups and schools if tests indicate that it may be reproduced effectively on tape and discs for both small and large audiences.

■ THREE main facts stand out as we evaluate our years of effort in providing assistance to other countries in our common struggle against world Communism.

One fact is that some of our projects abroad unquestionably have failed with resulting waste and loss.

A second fact is that, despite the failures, most of the world and all of the countries aided are still free—and they would not have been free without our Mutual Security Program. Therefore, it has succeeded remarkably well in its overall objective.

A third fact is that the program has saved us money, net. Without it, we would have had a larger budget, not a smaller one, because we would have had to expand greatly our own Armed Forces. If mutual security assistance were to be cut off, we would not have more money for schools, hospitals, highways, old age assistance, or tax or debt reduction here at home, as many assume, we would have less.

In looking toward the future there are about three courses, it seems to me, that we could decide to follow.

First, we could say that obviously the Mutual Security Program has not ended our trouble; therefore, let us give up the program as a failure and stop all aid.

Second, we could say that we have not yet achieved the security and unity in the Free World which we hoped for, therefore we should double our aid—more of the same.

Neither of those alternatives can do the job. The first would abandon the rest of the Free World to the Reds; the second would only complicate the confusions and irritations that are developing. Either of them would worsen our situation.

The third course is to improve our aid: Take a good look at it and determine what parts are succeeding; what portions are not succeeding; and then readjust the whole effort accordingly. Don't scrap the program—fix it.

To follow this course means focusing our attention and efforts, not on cutting the program out, but on cutting out of it the mistakes and nonessential projects. If we do this, we will both improve the program and save money—certainly as much as a half-billion dollars and more likely up to a billion dollars.

But if we focus our attention and efforts just on saving money and slash blindly, we will wreck the program, weaken our national security and not save money. In fact, we will have to spend more.

Events in Hungary last fall made clear that the Soviet system is much weaker—in Europe—than was generally realized.

At the same time, events in the Middle East made clear that the Free World alliance is much weaker and more divided—in Asia—than was generally realized.

Which will disintegrate first? Or, better, which side—the Communist World or the Free World—will be able to pull itself together first and most solidly? This is the $64,000 question of our time.

The Free World cannot be reunited on a basis of force. The only possible way of reuniting the Free World and winning the confidence and support of the peoples who are on the fence, is for us to rededicate ourselves to the kind of principles by which we live with our neighbors here at home, and by demonstration, to share those principles with peoples abroad.

If the Kremlin can get a war going in the Middle East, it will almost certainly touch off three more wars.

The Chinese and Russian Communists have built up such strength in North Korea, in complete violation of their solemn agreements at Panmunjon, that they are ready to move against South Korea.

The Communist Viet Minh in North Vietnam have been built up in violation of the Chinese Communist promises in the Geneva Accord so that they are ready to move against South Vietnam.

The Communists in China have built up powerful striking forces and air bases on the mainland of China so they are ready to attack Formosa.

In all three cases, the Communists are now in a position, due to their duplicity, to win—unless the United States goes to the assistance of the three allies to be attacked: the Republic of Korea, the Republic of China, and the Republic of Vietnam.

But how can the United States give adequate aid to all three while involved, or in danger of being involved, in a struggle in the Middle East—should the Kremlin be successful in getting a good fight going there?

If we cannot support four brush fire wars, then which are we to abandon? If we let Korea go, we lose Japan. If we let Formosa go, we lose the Philippines. If we let Vietnam go, we lose all of Southeast Asia. If we let the Middle East, go, we lose that whole part of the world—and then Europe.

(Continued on page 46)

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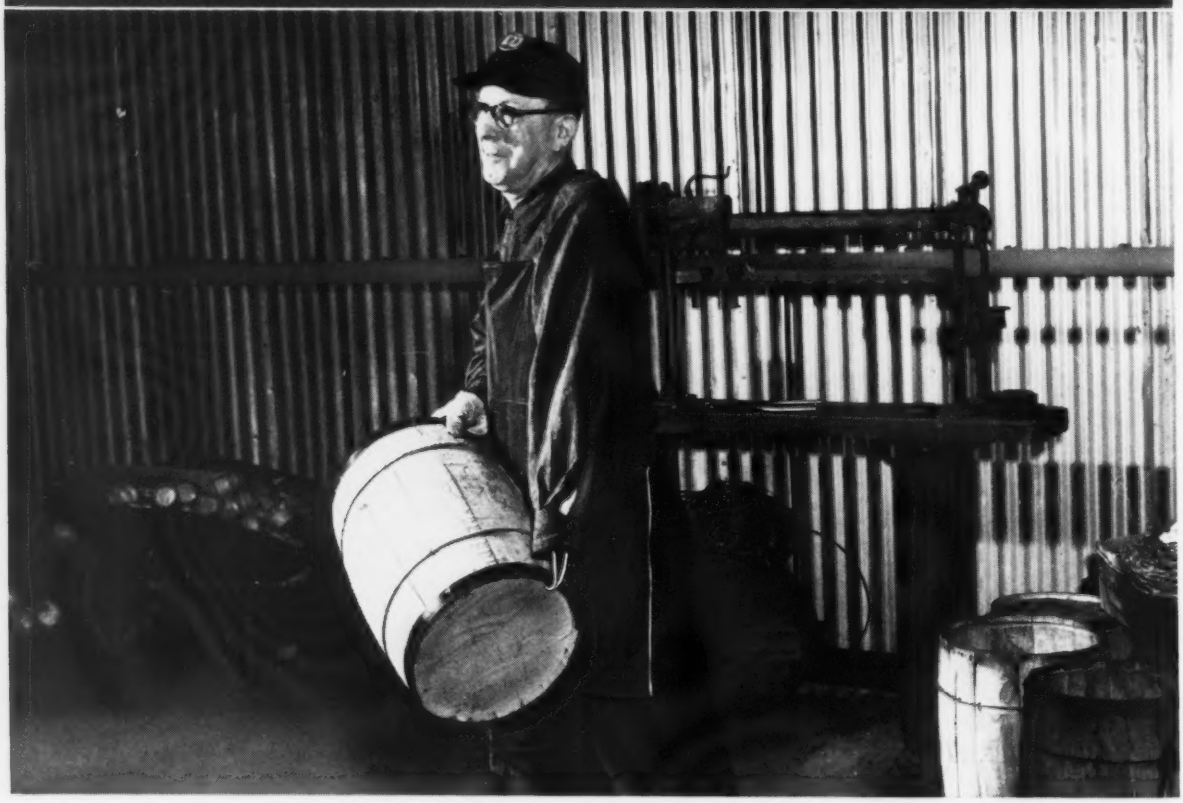


"As good as any two-armed man!"

ANOTHER LIBERTY REHABILITATION STORY

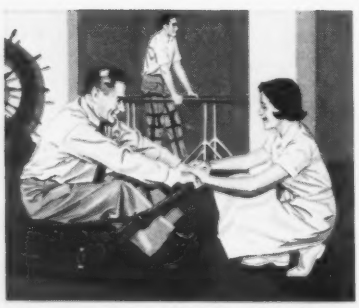
THE DAY AFTER Robert Baker's accident, a Liberty Mutual rehabilitation nurse visited him in the hospital and heard the full story. A large stamping press had caught and crushed his left arm. The necessary immediate amputation left only a six-inch stump.

A long period of healing followed. When Baker entered the Liberty Rehabilitation Center about five months after his accident, the big problem was to get enough motion in his very short stump so that he could use an artificial arm.

Liberty therapists gave him daily attention. In three weeks he was ready to be fitted for the artificial arm. When it was complete, he had to learn to use it. Therapy continued until he was adept.

Eight months after the loss of his arm, Baker went back to work at the same pay as before. His foreman says, "*On the job he's as good as any two-armed man in the plant!*"

This story shows how Liberty's rehabilitation methods help reduce the cost of compensation insurance — and restore injured workers to useful lives.



REHABILITATION OF BADLY INJURED WORKERS. Of thousands treated in Liberty Mutual Rehabilitation Centers, 85% were improved — and of those, 82% went back to work. By preserving human values, Liberty helps reduce insurance costs.

LIBERTY'S "EXPENSE RATIO" on Workmen's Compensation is lowest of any general casualty company operating nationwide. Liberty has returned $422,111,000 in dividends to policyholders. For 20 years — the nation's largest writer of Compensation.

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News Forum

This department includes a digest of news and comment about Connecticut industry of interest to management and others desiring to follow industrial news and trends.

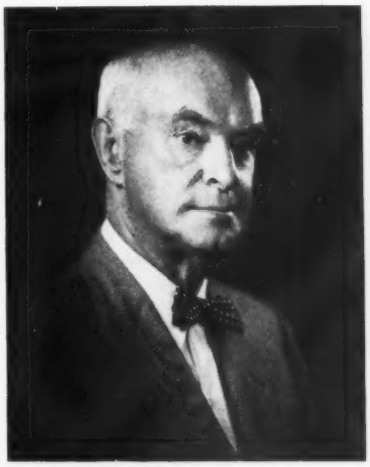
♦ FRANKLIN R. HOADLEY, SR., a retired president of Farrel-Birmingham Company, Inc., Ansonia, and a former president and treasurer of Atwood Machine Co., Stonington, died of a heart attack recently at his home in Stonington.

Mr. Hoadley joined Farrel-Birmingham in 1914, the same year he graduated from Yale University. Employed first as a core-maker apprentice, he progressed steadily to become assistant foundry manager in 1919, manager of foundries in 1927, a director of the company in 1923 and vice president in 1930. He resigned as vice president of Farrel-Birmingham in 1937 to become president and treasurer of Atwood Machine Co., remaining a director of Farrel-Birmingham.

He retained these positions until 1945 when he returned to Farrel-Birmingham as president, holding this position until retirement in 1955.

A leading figure in the nation's industrial life for many years, Mr. Hoadley was a past president of the Gray Iron Founders Society, a past president of the National Founders Association, and, during NRA, was chairman of the Gray Iron Foundry Industry's Code Authority.

He was a director of the Southern New England Telephone Company and of the First National Bank & Trust Company of New Haven; also the Liberty Mutual Life Insurance Company, the Savings Bank of New London, the Industrial Trust Company, Westerly, Rhode Island; the National Association of Manufacturers; and a director of the Manufacturers Association of Connecticut from 1937 to 1941, 1945 to 1949, and a vice president from January 1949 through December 1950.



FRANKLIN R. HOADLEY, SR.

Mr. Hoadley was a director and a leader in the development of the Grace-New Haven Community Memorial Hospital and a past director of Connecticut Medical Service. He was a member of the Graduate Club and of the Yale Club of New York.

He is survived by his wife, two daughters and a son, Franklin R. Hoadley, Jr., manager of Foreign Sales at Farrel-Birmingham; and nine grandchildren.

♦ SAFETY INDUSTRIES, INC., New Haven, has announced that its Lighting Division in Milford has received a contract from the Boeing Airplane Company to supply the interior reading lights for the new Boeing 707 jet transport. The "Safety" lighting fixture has been designed to combine ultra lightweight with maximum illumination control for passenger comfort.

Since 1887 Safety Industries has been a supplier of lighting equipment to the transport industry, primarily the railroads. H. F. Kneen, president of the company stated, "This marks a further step in the company's diversification program and the successful entrance of the company into the field of aircraft lighting.

♦ THE CARWIN COMPANY of North Haven has announced the appointment of Edward D. Walen as assistant to company president, Carl E. Van Winckel.

Mr. Walen was formerly plant manager of the Pacific Mills' Brookneal Mills and previously assistant director of research at Pacific Mills' worsted division.

♦ THE TORRINGTON COMPANY now flies a new blue and white pennant above its Excelsior Plant in Torrington—symbolic of the Department of Defense Reserve Award presented

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in recognition of the company's "outstanding cooperation with the Reserve Program of the Armed Forces."

The award was presented by Col. Charles W. Raymond II, chief of the Conn. U. S. Army Military District, and accepted for the company by Walter C. Thompson, president.

♦ ISAAC D. BLACK, former director of the American Harware Corp., New Britain, and former vice president and general manager of the corporation's Russell & Erwin Division, died recently at his home.

He entered the hardware field at the age of 15 as a stock clerk in Duluth, Minnesota and later traveled as a hardware salesman and joined Russell & Erwin in 1917 as general sales manager. He became the firm's general manager in 1927 and was named vice president the following year. He became a director in 1932 and retired in 1955.

♦ ELSON P. DOLLIVER was named president of Wallace Silversmiths (Canada) Limited at the annual meeting of the Canadian Company held recently in Mount Gabriel, Quebec, according to H. S. Stone, Jr., president of Wallace Silversmiths, Inc., Wallingford.

Mr. Dolliver, who has been executive vice president of the Canadian Company, was also named chairman of of the board of directors of General Plastics, Ltd. and Rudolph Novelty Company, two companies recently acquired by Wallace Silversmiths (Canada) Limited.

Mr. Dolliver has relinquished his duties as manager of the Metal Products Division of Wallace Silversmiths, Wallingford, in order to give full time to his new responsibilities in Canada.

♦ CON-TROL-EAR, a production time recorder which measures a machine's production time only, in hundredths of hours, has been introduced by the Moses Electronics Company, Hartford, application engineers and manufacturers of electronic equipment.

The recorder is said to be designed to facilitate the analysis and posting of time study reports and surveys. Applications range from the smallest desk top calculator to the largest rolling mill in the factory, and include both card and tape computers. It permits comparison of the work output of individual machines and the efficiency of individual operators.

♦ MILTON J. GELLIS has been appointed chief of the Gamma Radiation Department of State Testing Laboratory, Inc., Bridgeport, it has been an-

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- Metal working business up to $750,000.
- Machine shop or manufacturer of special machinery up to $250,000.
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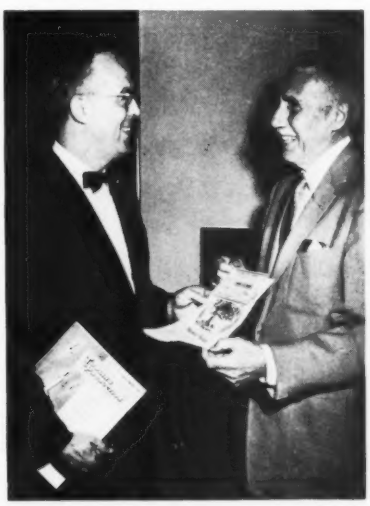
nounced by Edward B. Pickman, secretary of the corporation.

Prior to his present position, Mr. Gellis was director of the Metallurgical Control Division, and he will now coordinate and direct the use of the radioactive isotopes in the non-destructive inspection of metals.

State Testing Laboratory, Inc. has recently been given Atomic Energy Commission License #6-1635-01 for use of Isotope Iridium 192 in laboratory and field inspections.

♦ TRACY S. NABSTEDT was recently elected president of The Snow-Nabstedt Gear Corporation of Hamden, manufacturers of marine reverse and reduction gears. He joined the company in 1941, working mainly in sales and service and has remained with the company since that time except for four years during which he served in the U. S. Navy. In 1952 he became vice president and in 1955 general manager.

Mr. Nabstedt succeeds his father, Arthur T. Nabstedt, Sr., who joined the firm in 1916 as general manager. The company was known until 1942 as Snow & Petrelli Manufacturing Company. Through his efforts and his invention of the famous Joes husky gears the firm grew. In 1942 the firm was renamed the Snow-Nabstedt Gear



Ninth winner so far this year of Pratt & Whitney Company's coveted Charter Oak Award is Wayne Tinker, left, chief pneumatics engineer of the West Hartford concern. He is shown above receiving the award and a monetary bonus from Edward P. Gillane, president. The award is presented to Pratt & Whitney employees in recognition of their "personal interest and effort in developing editorial material to further the progress of the company through better understanding and education." Mr. Tinker received the award for an article he authored which appeared in Tooling & Production, a leading national trade publication.

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Corporation and moved into a modern plant in Hamden. At the retirement of Mr. Snow in 1946, Mr. Nabstedt became president. Mr. Nabstedt now continues as chairman of the board.

♦ A NEW PROCESS utilizing ultrasonic waves to tenderize food was announced recently by Luther G. Simjian, president of the Reflectone Corporation of Stamford. The new process is said to be widely applicable to the entire food processing and packing fields, with special meaning for meat, poultry, fish, fruits and vegetables.

In the tenderizing operation, food products are first frozen to a rigid state. The frozen food is then immersed in a water-filled tank and subjected to vibration through use of a transducer which produces sound energy in the ultrasonic range. The Reflectone process is said to be equally adaptable to restaurant or hotel use, small industry requirements, or mass production methods employing familiar conveyors.

The Reflectone Corporation designs and manufactures optical, electronic and mechanical equipment. It is best known for its simulating and training devices.

♦ DEVELOPMENT of a heavy-duty band saw machine designed and built specifically to utilize the full cutting capacity of high-speed steel band saw blades has been announced by The Henry G. Thompson & Son Company of New Haven. Produced by the American Machine & Foundry Company and jointly developed by AMF and Thompson engineers, this precision tool will be known as the "Milford Rezistor Milband Machine."

Thompson states that the Milband is believed to be the first machine that truly provides the rigidity and all-round ruggedness needed to withstand the wide range of blade speeds and heavy feeds of which modern high-speed steel band saw blades are capable.

♦ APPOINTMENT of Richard B. Connell as manager, air conditioning sales has been announced by Frederick K. Daggett, president, Flexible Tubing Corporation of Guilford. Mr. Connell will have full responsibility for sales of Thermaflex, Flexible's metallic and fiberglas laminated ducting for air conditioning use.

Mr. Connell was formerly field representative for Norma Hoffmann Bearings Corporation, and previously was assistant to the sales manager of the Thermoid Company, Industrial Friction Division, of Trenton, N. J.

♦ GEORGE P. MERRILL is resigning as general sales manager of Stanley Hardware, effective January 1, it has

been announced by Russell J. Willoughby, vice president of The Stanley Works in charge of the hardware division. At that time Mr. Merrill will leave The Stanley Works after nearly 22 years of service to take up new duties as executive secretary-treasurer of the American Society of Architectural Hardware Consultants in the Society's headquarters to be located in California.

A prominent member of the Society, Mr. Merrill was elected president of the organization in 1948, and has served on either the board of directors or on the executive committee for the past 13 years.

♦ FRANK J. DELEAR, a veteran of more than 20 years in the newspaper and public relations field, has been appointed public relations manager of the Sikorsky Aircraft division of United Aircraft Corporation, it has been announced by Lee S. Johnson, general manager.

Except for a four-year period he spent in the oil industry, Mr. Delear has been a member of the public relations staff of United or its divisions since 1942. He was graduated from Boston College in 1936 and immediately joined the Quincy Patriot-Ledger editorial staff. In 1937 he became a member of the staff of the Bridgeport Post, where he specialized in aviation news.

♦ A NEW, self-tapping carbon steel insert that provides threads that will not strip under stress or hard use in wood and related materials such as plywood, fiberboard, chipboard and laminates has been introduced by the Heli-Coil Corporation, Danbury, a division of Topp Industries. Designed to fulfill the fastening requirements of woodworking assemblies, the wood insert is adaptable to a wide range of applications from office, household and outdoor furniture to cabinets, novelties and display counters.

Installation requires only a combination drilling and countersinking operation after which the insert is installed with a shoulder type inserting tool that can be used in a standard carpenters brace or breast drill. For continuous, production line installations automatic power tools are available.

♦ COMCO, Inc., division of Enthone, Inc., New Haven, a subsidiary of American Smelting and Refining Company, has announced the appointment of Avery Smith as assistant to the general manager, J. J. Martin, Jr.

Mr. Smith was formerly associated with the engineering department of American Machine and Foundry Corporation, Deep River.

♦ EDWARD P. GILLANE, president of the Pratt & Whitney Company of West Hartford, and chairman of the board of Potter & Johnston Company of Pawtucket, Rhode Island, has also been named executive vice president in charge of industrial operations for Penn-Texas Corporation. He will continue as chief executive officer of Pratt & Whitney, a Penn-Texas subsidiary.

♦ THE ELECTION of John T. Barrett and Albert W. Tucker as members of the board of directors of The Henry G. Thompson & Son Company of New Haven has been announced.

Mr. Barrett has been associated with the Thompson Company for twenty-five years as controller and assistant treasurer, and has recently been elected treasurer of the corporation.

Mr. Tucker has been associated with the company for thirty-three years in an executive sales capacity, and for the last seven years has been vice president in charge of sales.

D. W. Northup, president, also announced the appointment of R. N. Whelahan as controller.

♦ A LOAD comparison chart covering three series of chrome-vanadium

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Forming Dies	400%
Escalator Gear Lubricant	700%
Cutting Tools	300%
Pneumatic Sanders Bushings	400%
Electric Switches	150%
Grinding Machine Screws	200%
Glass Machine Lubricant	400%
Taps	300%
Broaches	300%

These increases are due to 4 reasons.

(1) Molykote resists pressures far beyond the yield point of any metal. Its lubricity improves with increasing pressures.

(2) Molykote resists wear during extensive cycling.

(3) Molykote resists extreme temperature. It is thermally stable from −300°F to 750°F.

(4) When used dry Molykote does not collect abrasives.

Molykote contains highly purified molybdenum disulfide, a mineral with 40 lubricating layers in 1 millionth of an inch and a high tenacity for metal. There are 16 types in grease, powder, liquid and bonded coating forms. Write or call about your difficult "fringe area" lubricating problems. Ask for field reports for your industry.

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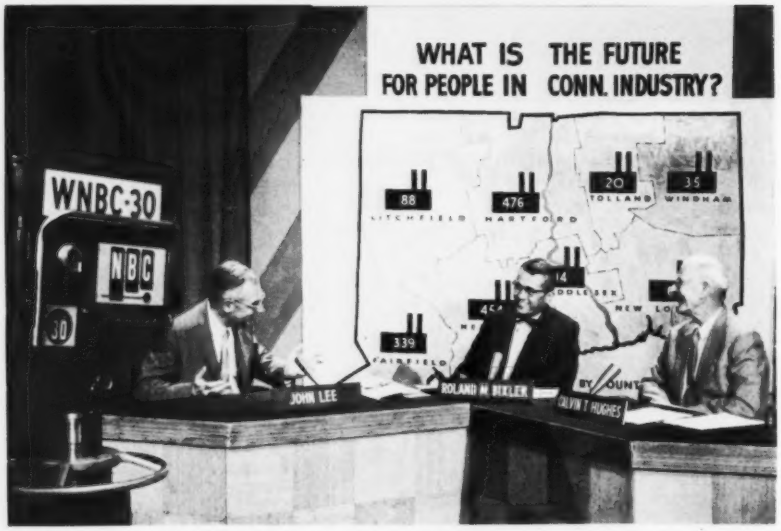

"What is the Future for People in Connecticut Industry?" was the subject of a recent discussion by members of the MAC Speakers Committee, televised over Channel 30, WNBC. John Lee, director of research, United Aircraft Corporation, East Hartford (left) discussed what research holds for the future; Roland M. Bixler, president, J-B-T Instruments, Inc., New Haven (center) acted as moderator and pointed up the threat of taxes to industrial development; Calvin T. Hughes, vice president, The Connecticut Light & Power Company, Berlin (right) discussed the impact of atomic energy on Connecticut people.

steel die springs is now available from The Producto Machine Company, Bridgeport. It measures 12" by 20" and is suitable for wall mounting or for convenient use at the drawing board or work-bench.

The two-color chart has been designed to simplify selection of the die spring that best meets the requirements of a particular application on the basis of load rate, diameter, free length and percent deflection.

♦ WHAT IS SAID to be the world's largest hydraulic crimping press, to install compression connectors more than six inches in diameter on cables as large as 12,900,000 circular mils, has been developed by Burndy Corporation, Norwalk.

Using and air or electric motor to drive an oil pump developing 6,000 pounds per square inch of pressure, the press exerts 100 tons of force to make compression connections. Its first use will be to install connectors in giant minesweeper cables, forming splices stronger than the cable itself.

♦ FARREL-BIRMINGHAM COMPANY, INC., Ansonia, has announced the appointment of Robert J. Horning as manager of roll grinder sales to succeed Harlan J. Hauser, who has been made assistant sales manager of Consolidated Machine Tool Division at Rochester, New York.

Mr. Horning will make his headquarters at the company's home office at Ansonia. For the past year he has handled roll grinder sales in the New England territory.

♦ A NEW Electronic Dynamaster X-Y Recorder has just been announced by The Bristol Company, Waterbury. The new strip-chart recorder will automatically plot a continuous curve showing the relationship of one measured variable to another.

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- Should be components or accessories sold to manufacturers of industrial end products or through hardware or similar channels to consumer. A general contract type of operation would be considered.
- Sales in range of $500,000 yearly.
- Major echelons of management must be available to continue with business.

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Some typical uses for the instrument include plotting temperature versus pressure in the process industries, position of intake parts versus gas flow in wind tunnel research, location on web versus thickness in papermaking, and speed versus torque in motor operation.

♦ THE ELECTION of Leonard J. Quartin as vice president of The Kalart Company, Inc., Plainville, has been announced by Morris Schwartz, president.

Mr. Quartin recently completed twenty years of service with Kalart. He joined the company in 1937 as an inspector after majoring in mechanical engineering at the Polytechnic Institute of Brooklyn. Developing the company's first Inspection and Quality Control Department, Mr. Quartin became its supervisor and later was named general assembly foreman. In 1946 he became assistant plant manager and was promoted to the plant manager post one year later. He has served in that capacity until his recent election as vice president.

♦ A NEW six-page catalog has been made available recently by The Production Services Corporation, Newington. The brochure describes the broad range of engineering services performed by the company for the producers of industrial, consumer goods and ordnance.

Production Services, according to its president Robert H. Whitney, is equipped to operate in the major creative departments: Product engineering, design and development, production engineering, graphic arts and plant services.

♦ THE ESBEC Barrel Finishing Corporation, Byram, has announced ESBEC No. 203, a burnishing compound which represents a new development in the barrel finishing field.

It is described as a fine, non-dusting, non-abrasive, highly concentrated powdered compound especially designed for high lustre burnishing in aluminum oxide chips and in molded shapes.

The compound is said to be a dual action burnisher as it can be used for "cut and color" operations where deburring and burnishing is done in one operation in aluminum oxide media. By eliminating separate cut, rinse and burnishing cycles, substantial savings are made in both man-hours and material.

Technical data sheets and free test samples are available from the company.

♦ THE APPOINTMENT of David H. Burrell to head up all domestic sales activities for Underwood Corporation has been announced by W. G. Zaen-

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This year, over 214,600,000,000 ton miles of intercity freight will be hauled by Motor Carrier. Full-time employment for more than 7,000,000 men and women makes the American Trucking Industry second only to Agriculture in total number employed. And over 25,000 American communities will depend on the truck as their sole means of moving goods to market.

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Eastern Express, Inc., by providing the finest motor freight facilities between the Midwest and Eastern Seaboard, maintains an integral segment of our shipping network and contributes its share to the increasingly important role of the Motor Carried in our national economy. As with the entire American Trucking Industry, the interest at Eastern Express is in providing safe, dependable on-time service at a cost advantageous to the shipper. The next time you ship, specify Motor Carrier service. And for flexible unexcelled service between Midwest and Eastern Seaboard cities, ship via Eastern Express, Inc.

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glein, president of the business machine company.

Mr. Burrell was formerly vice president-operations for Cherry-Burrell Corporation in Chicago where he supervised engineering, manufacturing and marketing for a major company which makes capital equipment for the dairy, farm, beverage and chemical industries.

A graduate of Loomis School at Windsor and the Sheffield School of Yale University, Mr. Burrell assumes responsibility for a stepped up program aimed at increasing sales volume for Underwood standard and electric typewriters, adding machines, accounting machines and integrated data processing systems.

♦ HARLAN L. REYCROFT, JR., sales supervisor at Haydon Manufacturing Co., Inc., Torrington, has been appointed to the post of sales manager.

Mr. Reycroft joined Haydon early this year and was named sales supervisor in April. In his new position he will continue to supervise sales personnel in the field and at headquarters, and will have over-all responsibility for the sales of Haydon's timing motors and timing devices and clock movements.

♦ BOSTITCH, INC. has completed the move to its new $6,000,000 factory and headquarters in East Greenwich, Rhode Island, it has been announced by Emmet G. Gardner, president. The need for greatly expanded facilities to manufacture the company's large line of staples and stapling equipment brought about the move from its Westerly factory, where Bostitch has had its headquarters since 1946.

The East Greenwich plant will manufacture most of Bostitch's complete line of staples and staplers, although some products are manufactured in its Canadian and Puerto Rican plants.

♦ A NEW electrical stop clock featuring instantaneous electrical reset and accuracy within 0.01 second has just been announced by Cramer Controls Corporation, Centerbrook.

Designated Type 691 Time Totalizer, a dust-tight commercial model and a military version are offered. It is available for either local or remote reset. Load switches rated 5 A. to 250 VAC resistive, operated from cams on either high or low speed pointer shafts, can be supplied.

♦ OLIN Mathieson Chemical Corporation has announced plans to build a nuclear reactor assembly plant on a 216-acre site in the Trading Cove section of Montville. Construction was started last month on a 10,000 square

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However, these are only three ways to add volume and profits. There are other ways to achieve your growth objectives through the adaptation of the **"Amoeba Theory of Management."**

We would like to explain the **Amoeba Theory** to you and explore its possible application to your business.

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Our fees are based on professional per diem rates. But you are never under any obligation unless you so agree.

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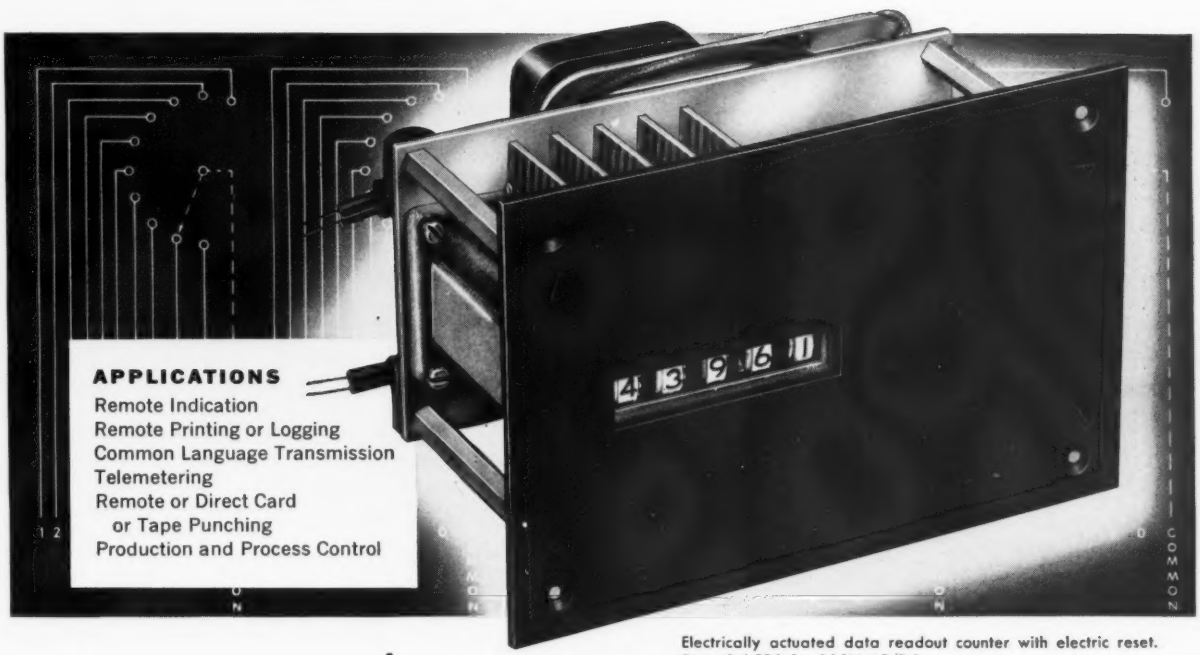

Electrically actuated data readout counter with electric reset. Form B-1538 for 110V AC/DC.

FUNCTIONS

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Predetermining
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Veeder-Root's new series of Data Readout Counters combines visual indication with electrical readout for remote indication, recording, and controlling applications. *Electrically* or *mechanically* driven and provided with *manual* or *electric* reset, these counters present a positive display of accumulated totals and automatically create specific control circuit contact closures for each number visually displayed. Each instrument, with its five figure capacity, provides 100,000 distinct circuit arrangements which lend themselves to the most exacting control and transmission requirements. The counters are compatible with standard data processing equipment and offer a wide variety of applications in the industrial control and data processing fields.

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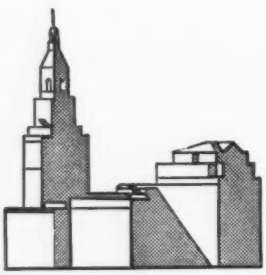

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foot plant which is expected to be in operation by next April.

Less than 50 persons—most of them engineers—will be employed in initial operations. Early production will be for defense purposes.

♦ NEGOTIATIONS have been completed for the sale of the Henry & Wright business and inventory to Koehring Company of Milwaukee, Wisconsin, according to an announcement by S. F. Wollmar, president of Emhart Manufacturing Company, Hartford, of which Henry & Wright is a division.

Mr. Wollmar said that the decision has been taken to make available the total capacity of the Henry & Wright plant in Hartford to meet increased future demands for the expanded line of Emhart products. The sale does not include any part of the plant or equipment.

♦ THE CONNECTICUT YANKEE is noted for his stability, craftsmanship and his ability to stick to a job to its satisfactory completion. Such a man is Jacob M. Bauer, who has just marked the 60th anniversary of his employment at Malleable Iron Fittings Company of Branford.

In 1887, Mr. Bauer went to work for M.I.F. as an inspector. After several years in that position he was raised to foreman of the hard iron inspection department, a position which he held for many years. In 1941 when the Malleable Iron Foundry was mechanized, Mr. Bauer was made chief inspector, the position he now holds.

The new plant of United's Shelton Eyelet Division is located in the heart of the country's brass working region at Shelton.

♦ UNITED standardized eyelets, special eyelets, and other deep draw metal products widely used in the electrical and electronics fields and by many other industries are now being manufactured in a new, modern plant at Shelton.

The new plant is the home of the Shelton Eyelet Division of the United Shoe Machinery Corporation of Boston. The firm's eyelet factory had previously been known as United's S.O. & C. Company Branch and until the recent move had been located at Ansonia.

Plant Manager, Henry Tolman II, said that users of United eyelets are expected to benefit materially from the new plan which has a straight line production layout and is equipped to make same-day shipment on orders for stock items.

♦ DARWORTH, INC., wholly-owned subsidiary of The Ensign-Bickford Company, Simsbury, has announced the appointment of John R. Horsey to the new post of manager of market research and development.

A graduate of Wheaton, Ill. College, and holder of a master's degree in analytical chemistry from Ohio State University, Mr. Horsey was employed

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♦ A WIDE RANGE of electrical contacts of precious, rare metals and their alloys is now being manufactured by Contacts, Incorporated, Wethersfield. Over 50 different contacts, in recommended standard sizes for maximum economy and delivery, are said to be stocked.

Precision contacts of fine silver, coin silver, Conmet 4 and Conmet 17, are produced in a new plant with the most modern equipment. Available now are standard solid headed contacts and clad metal contacts made from composite metals, and special contacts for the most exacting electrical and electronic applications.

♦ IT HAS BEEN REVEALED by H. Mansfield Horner, chairman of United Aircraft Corp., East Hartford, that in 1957 and 1958 the company would spend about $100,000,000 on research and development. He also said, before the New York Society of Security Analysts, that expenditure of another $100,000,000 over the next three or four years for similar purposes also was being considered.

Most of the 1957-58 money, he indicated, will be in buildings and special equipment including outlays for the company's new facilities in Florida.

♦ RAY PROOF CORPORATION, manufacturer of radiation shielding materials and equipment, has recently completed a move of factory and offices into a modern three-story building in Stamford. The move to larger quarters from the company's former New York headquarters was dictated by an increasing demand for radiation shielding for nuclear, industrial and medical applications.

Full production is already under way at the new plant, at which all of the company's products, including high density concrete, shielding doors and completely shielded enclosures, will be manufactured.

♦ WILLIAM A. ANDERSON has been elected vice president and general manager of Associated Spring of Puerto Rico, Inc., the newly formed subsidiary of Associated Spring Corporation, Bristol.

The new plant, which is already under construction at Carolina, a suburb of San Juan, is expected to be in full production by January 1, 1958. The plant will be the first precision mechanical spring plant in the West Indies and will serve the growing number of manufacturing companies in Puerto Rico and the Caribbean area

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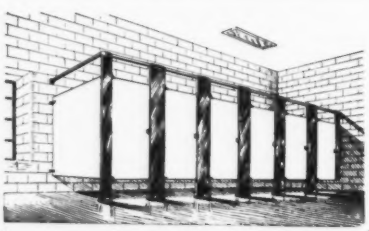

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with essential components for their assembly lines.

Mr. Anderson has been with Associated Spring Corp. since 1946, when he joined the corporation's William D. Gibson Co. Division in Chicago as a salesman.

♦ DORR-OLIVER, INC., Stamford, has announced the reorganization of its production-procurement department, and the promotion of several members of that department. Under James B. Hoxie, director of production, the realignment of department staff and operations into functional groups was designed to afford better service to D-O customers.

Arthur F. Jaeger of Stamford has been named to act in the dual capacity of director of purchases and assistant director of production.

Andrew J. Lantleme has been promoted from industrial procurement control manager to the newly outlined post of purchasing at Stamford. L. T. Brennan will head the new order division and have charge of all customer machine orders entered by the parent company. The new production planning division will be headed by H. A. Monsor and Edward F. O'Neill has been named to the new post of traffic manager.

♦ THE NEWEST DIVISION of the York Research Corp., Glenbrook, was opened with formal ceremonies recently.

The radio-interference and suppression laboratory, located in one of the largest radio-interference-free rooms in the country, was visited by many guests during an open house. It is the third addition since York Research moved to Glenbrook, two years ago.

The new division will test motors, diathermy equipment, germicidal lamps, and anything else that might interfere with radio, television or other electronic communications media.

♦ TO CHRONICLE its fifty years of growth and achievement, The American Thermos Products Company, Norwich, has published an interesting history of the company since is founding in 1907.

Compiled and edited by Marilyn C. Acton, historian, copy and illustrations trace the Thermos history from the production of the first vacuum in 1643, through its first successful application as a flask to keep things hot or cold, invented by the English scientist, Sir James Dewar in 1892; its refinement and production by a German firm under the name "Thermos," and its introduction to the United States by William B. Walker, founder of the American Thermos Bottle Company.

The company's 50-year record of progress from that beginning in 1907 is well told in this colorful booklet entitled "50 Golden Years."

In a message incorporated in the booklet, President Arthur H. Payson points out that the story of the Thermos organization is a "tribute to the faith and courage of many men and women—employees, shareholders, customers, and suppliers— who have contributed to our advancement during five decades of the greatest political, social, economic, and technological changes the world has ever known."

The Threat of Creeping Inflation

(Continued from page 29)

ness on the automobile manufacturers does not fool anybody—I suspect not even himself.

Can we talk ourselves out of a

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disastrous end to the wage-cost inflation? Perhaps not, but I give you a trade secret of the economic forecaster which was confided to a gathering in New York some years ago by a great man in that field. He said (and I quote):

"The fun of being an economic forecaster lies in this fact: If your forecast is believed, then what you forecast cannot happen. It can only happen if you are not believed. If I say to you that the stock market will rise gradually to a new high six months from now, and you all really believe me, your buying would bring the new high tomorrow and six months from now it probably would be down again. Your belief of itself would have created a new set of conditions to nullify my prediction."

If we all—I mean all of the people of our nation—could be made to believe that the wage-cost inflation is bound to end in collapse, then each of us will take prompt and effective steps to avert it, and it won't happen. But we must really believe, and act on that belief.

I cannot close my brief remarks without reference to the pleasure it has given me to serve as your President during the past nine months, and to express my thanks to the members of the staff who, of course, carry the burden of association affairs.

"purr-fect.."

NO DOGS ALLOWED

Iphigenia, our plant mascot, seems to think it's the cat's meow to sit, hours on end, staring at the sparks from a welding machine . . . sort of silent quality control. But the old girl finds time for other pursuits in life as well . . . and regularly produces three litters annually.

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The Impact of World Events On Connecticut Industry

(Continued from page 30)

This is why it is absolutely essential that the United Nations, with our support, get the armies separated in the Middle East. If the Israeli and Egyptian or Syrian forces are in direct contact, the Communist agitators are all too likely to be able to succeed in getting hostilities started up again, which would not serve the true interests of either Israel or Egypt or Syria, but only help the Kremlin in its never-ending efforts to isolate, weaken, and destroy the United States.

While governmental agencies work to prevent outbreak of open war anywhere in the world in the immediate future, the larger task is the building of good relationships between peoples, and helping them develop governments responsive to the desires of the people.

One reason for much of our trouble in building good relations with other peoples is that we generally try to do too much too fast and spread ourselves too thin. We devise programs and plans and put them in operation before we have the personnel to handle them effectively.

In contrast, our enemies, the Communists, take infinite pains in selecting their personnel, and then train them most carefully until they are professionals at whatever they are sent to do.

Because we are accustomed to rapid changes and driving efficiency in our own country, we try to go at the same speed in other countries. The net result sometimes is to create more irritations and resentment than good will. We simply must strip down our operations abroad to the few essentials that are of life or death importance to a country, and which we and they have the trained personnel to operate. When we try to do more than that, our people get in each other's way to the point that the end result is sometimes more confusion than accomplishment.

Not only must those Americans handling our various aid programs abroad be better selected and better prepared for their tasks, they must be willing to stay on the job longer periods of time.

It is like the top executives who come to Washington, work hard for a year or so, organizing or reorganizing an agency—and as soon as they get it going well, then resign and go home. What happens? The agency soon settles back into the same old ruts—under less able men.

The top executives say they must go home to look after their private inter-

ests. But how long will they have any private interests to look after if we don't succeed in keeping our world free and strong and united? Where is there a bigger challenge or duty for our top men and women than to work in government, both at home and in foreign posts? The task must be lifted up until it captures the imagination and enlists the loyalty of our very ablest persons and keeps them at the job until it is done.

Successful business or industrial leaders would not think of bringing out a new model automobile without years of study and preparation. Yet they imagine the United States of America can hold the free world together and thereby save itself without their giving to the task literally years of single-minded and dedicated study and effort.

The difficulties are very great, but we can handle them successfully, as we have every other task, when we took the pains to understand the problem thoroughly and set our minds and hands to it with a will.

Air Age in the Show Window

(Continued from page 9)

tween accurate forecasting and the industry's concern with safe travel could hardly be missed.

G. Fox and Co. was in the building again. This year, the big department store featured a purely institutional appearance, looking in, as it were, just to salute fifty years of air power.

What was left of the Connecticut Building was occupied by regulars who return each year by a kind of popular demand. Visitors to the Connecticut Building always look for the WTIC studio up in the balcony and the livestock at the exhibit of the State Board of Fisheries and Game. Were it to be absent even for once, they would miss the Department of Agriculture at the foot of the stairs.

An exhibit by Bristol Nurseries, somewhat curtailed this year by the presence of the big helicopter and the fresh flowers furnished by the Connecticut Florists Association at each booth, gave the state's colonial structure its usual atmosphere of unusual distinction. Connecticut State Police were at their regular posts on the only piece of real estate owned by the State of Connecticut outside of its own borders. The University of Connecticut provided a little balance with the attractions of agricultural careers.

When the final curtain fell, Sunday, Sept. 22nd, on "The Show Window of the East," more than half a million persons had passed through the gates and onto the Exposition grounds. The Connecticut Development Commission, which manages the building, estimates that nearly 90 per cent of them passed through the Connecticut Building and saw the exhibits there. That's something to think about.

So far as is known, no one rushed home to order a new J57 or a low mileage last year's model of a Sikorsky helicopter or even a sport model guided missile. The fact is, however that these many thousands of Americans, young and old, got a closer view of the aircraft industry and its products. By and large, they liked what they saw. They were impressed. They got the message —and from the point of view of the aircraft industry, getting the message to that many thousands of potential air travelers and to that many thousands of taxpayers—well, that's a good day's work.

Designed by André Francois

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. . . a scene that P&W remembers

Crack of the Stage Driver's Whip . . . and the sound of his horn as the stage neared one of many roadside inns were once familiar sounds along Connecticut turnpikes. From 1799 — when the Hartford-Albany Turnpike first opened — till 1900, the stagecoach was one of the state's principal means of transporting passengers, mail and freight. Strategically located, Hartford was a hub of this activity. In 1843, for example, no fewer than twenty-two stage companies had their headquarters here, and regular service was provided to New Haven, New York, Albany, Boston and Providence . . . and to principal towns and villages throughout the state. A fast stage made Boston in seventeen hours; and passenger fare was $6.50.

Transportation has always been an important factor in progress; and, during the nineteenth century, the stagecoach contributed much to Hartford's steadily growing prosperity. For almost 100 years, the Pratt & Whitney Company has played an important part in state and national progress through its contributions to all forms of transportation. Today, giant P&W Keller Machines produce dies to stamp out auto bodies; aircraft accessories produced by the Chandler-Evans Division help keep our commercial and military planes flying . . . and many other P&W products help keep America "on the move."

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How Would You Decide?

By Fredrick H. Waterhouse
Counsel

Is an arbitrator justified in refusing to make an award according to the unambiguous language of the contract if such award will endanger the health of the employee involved?

Here's What Happened.

The contract contained a management clause including the right to transfer "and to make rules and regulations governing the safety of employees, unless otherwise hereinafter provided." However, thereafter it provided among other things that the arbitrator should have no authority "to add to, enlarge upon, subtract from or in any way modify the terms of this agreement or make any recommendations relative thereto." It also provided that "transfers by the company that are to exceed a period of five (5) working days duration, shall not be compulsory on any employee." When the company learned the grievant had a heart condition such that both company and union doctors said he should avoid strenuous exertion, it attempted to transfer him to a less strenuous iob but one in which his earnings would be somewhat less. After some arguing he agreed to take the transfer but was discharged. In a previous arbitration proceeding, the board ordered him reinstated. The present proceeding is to determine whether the company still may transfer him to a less strenuous job in view of his heart condition and the reports of the doctors.

Does consideration for the safety or health of the employee outweigh unambiguous contract clauses?

The arbitration board felt that the union doctors agreed with the proposition that the job from which the employee was transferred goes beyond the average or physical effort which they recommend. It quite succinctly stated the question to be "not whether or not (the grievant) can do the job, but rather what the job can do to (the grievant)". It was of the opinion that the job from which he was transferred is one which might permanently disable him. Nevertheless, the board felt it was bound by the terms of the contract which the parties had drawn and was specifically prohibited from in any way modifying its terms. Consequently, it held the company had violated that part of the contract which stated an employee could not be permanently transferred without his consent since this employee did not consent. He was ordered reinstated in his original strenuous job. In a dissenting opinion, the employer member of the board felt the board should follow the philosophy of a Connecticut Supreme Court decision to the effect that all contracts should be interpreted to impliedly contain a provision that they would not be enforced if the public health would be endangered thereby.

When a contract contains no provision regarding canvassing or posting vacancies, but does provide vacancies will be filled by the senior bargaining unit employee who "deserves" it, must the company notify all eligible employees of the opening before filling it?

Here's What Happened.

The union had repeatedly been unsuccessful in its demand for a contract clause requiring the posting of vacancies. However, the contract did provide that permanent openings would be filled by the senior bargaining unit employee who "deserves" it, provided he had the ability. When an opening occurred the company filled it by transferring the individual having the highest seniority among the three applications on file. A couple of days after this transfer, the grievant saw the new operator on the job and told his foreman he wanted the job as he had more seniority although he had no application on file. The company claimed the job had already been filled and so there was no opening. Furthermore, there was no requirement that an opening be posted or advertised, and since the senior employee among those who had applications for such a transfer on file had been given the job, the terms of the contract had been fully complied with.

With no posting of vacancies required, must the company nevertheless notify the union of a job vacancy so it can canvass its members to discover the eligible employee with the highest seniority who wants the job?

The arbitrator said among other things that the plain language of the

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contract or agreement between the parties had not been violated. He then pointed out that the contract specifically prohibited him from amending, adding to, subtracting from or eliminating any provision of the contract. He concluded that "the opening was filled improperly, in that a reasonable opportunity was not afforded others with greater seniority to express their desires concerning the vacancy."

May the company unilaterally establish a new department and transfer thereto employees and classifications from existing departments?

Here's What Happened.

The company decided that it would be more efficient and economical to establish a prefinishing, or heavy machining, department which would be used to supply existing departments with semi-finished, or roughed-out work, which was presently being performed in various departments. This involved changing a "Carbide Milling" job title to "Carbide Machining Operator" as machines other than millers were to be installed, with carbide cutters, to perform this roughing-out. It also involved transferring three carbide machining operators, a saw man and a utility man to this new department. There was to be no change in rate from "carbide milling" to "carbide machining operator" as the company felt there was no change in the degree of skill or experience required. This change would permit more efficient use of the company's heavy and high capacity equipment, and would free its tool and die makers and machinists for the more exacting work after the routine roughing-out work had been done in the new department. Other efficiencies were also contemplated and the union was fully informed of the company's intent and developments. The union claimed the company could not thus unilaterally establish a new department. It contended that the contract sets up a bargaining unit comprised of employees in various classifications in designated departments and since the department is the seniority unit for layoff, overtime and many other benefits, the creation of a new department affects nearly every major aspect of the agreement and should be negotiated. Also it claimed the duties of a job classification are frozen for the life of the agreement. The company claimed it had the right to establish new departments. It also claimed the right to assign particular duties to a new job classification, in which event the union might seek to negotiate a new rate commensurate with the new duties but could not question the company's right to assign the work.

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Communications Break-Through

(Continued from page 11)

enlisted, and twelve more will be active by the end of the year. At Evansville College, for example, the program is being offered to 30 companies in the area on a continuing basis. Other companies are adapting parts of the material to their own needs.

The University of Chicago is also working with us on a program aimed at building management cooperation at every level. Members of the management team are given a thorough study course covering the annual report, the union contract, and problems of personnel and supervision.

Every move we have made to promote the understanding of economics and business problems has been warmly received. In our Economics-in-Action program at Case Institute of Technology, to give another example, we offer 50 all-expense fellowships to college teachers of economics and social science. This year, the sixth in which we have offered the program, we have received 164 applications for the 50 fellowships. This indication of interest was confirmed by an independent survey by Opinion Research Corporation.

There is no question about it. The opportunity to break through the communications barrier is there if we will grasp it.

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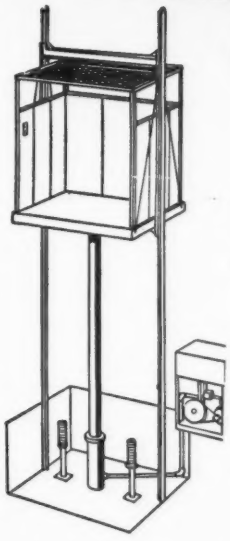

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about the problems I have outlined. By the same token there isn't a company here—and I include Republic—that cannot easily do much more than it is doing.

Don't overlook the fact that small companies as well as big ones can develop effective programs. Two or more companies participating in the same program and sharing in its cost could do a basic economics job with one of the regional universities that are cooperating with the University of Chicago. Other universities could be enticed into doing the same thing that Case Institute is doing for Republic on our Economics-in-Action program. A joint enterprise by a few companies could expand this great work tremendously and I can assure you that Case would co-operate wholeheartedly.

But we must never forget that programs such as these are only a beginning. We need more facts and a simpler business language. We also need a broader philosophy of communications.

Understanding of Relationships Vital

In the most literal sense, a company's communications program should be designed to strengthen the bonds of mutual interest that hold our society together. It should relate the employee—whether he be company president or trainee—to his job, to his company, to his community, and to the important issues of the day. It should relate the company to the community, to the industry of which it is a part, to the industries it serves, and to the economy as a whole.

I believe it is our responsibility to promote prosperity as well as products; good citizenship as well as good business; good government as well as free enterprise and the advantages of creative capitalism.

My credo, reduced to its simplest form is this: There is no basic conflict of interest between organized labor and management, business and the public, or business and government. There is only conflict growing out of ignorance and misunderstanding.

My proposal to you is equally simple: Let's get the facts, develop the language, and utilize *all* of the tools of communication to promote understanding and the co-operative spirit.

If we do, the age-old dream of a truly united people, going down the road of prosperity and happiness together, can be a reality at last.

With only a few minor deletions this is the address given by Mr. White before the American Iron and Steel Institute in New York City earlier this year.

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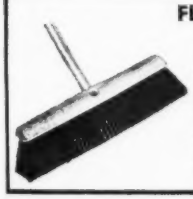

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Transportation

By John B. Hedges
Traffic and Export Manager

♦ EARLY in August the Interstate Commerce Commission handed down its decision in Ex Parte 206 increased freight rates, Eastern, Western and Southern Territories, 1956. The Commission decided that the railroads should have increases over their December 27, 1956 rates of approximately 14% in Eastern Territory on commodity rates, 12% in Western Territory on commodity rates and 12% on commodity rates between those two territories. They decided that in view of the stronger financial position of the Southern Railroads, 9% on commodity rates within, from and to the Southern Territory (including the Pocohontas region) would be adequate. Grain, livestock, fresh meats and packing house products were granted a uniform 9% in all territories. Many other commodities received special treatment. The entire uniform class rate structure throughout the country was given a 12% increase. The increases became effective August 26.

This action of the Interstate Commerce Commission was not the first decision in this proceeding, nor does it seem as though it will be the last. Since the amounts granted fell short of the carriers' demands and expectations it seems likely that expected increased labor costs late this fall may impel the railroads to seek further rate relief.

The Commission's decision in Ex Parte 206 follows the usual pattern with which we have become familiar in the past: the review of testimony, presentation of selected statistics, citations of leading cases and finally, the Commission's conclusions and its order in the proceeding. It is interesting to note that the Commission made it very clear that nothing in the law or in the statement of National Transportation Policy requires the making of freight rates to yield any fixed rate of return on investment. In this proceeding, the Commission tried to find out what the rail carriers needed to meet their increased cost which, of course, varied from territory to territory. The Commission's conclusions state that the increases granted will, in the judgment of the Commission, under efficient management meet these costs. The Commission recognized that the forthcoming cost of living wage adjustments and increased payroll taxes would probably have to be met by future increases, but they also made it clear that such increases should not be the basis for another general rate investigation. Instead, the carriers should consider carefully the amount of revenue needed to meet such expenses and file tariffs naming rates calculated to produce that revenue. Such tariffs would, of course, be subject to possible protest and suspension. Further, it is highly significant that the Commission stated that any such additions to revenue should be accomplished by other than horizontal percentage increases.

This brings us to the position taken by the Association in its case before the Interstate Commerce Commission. We advocated the use of a graduated scale of increases if any increases were found to be justified. Other groups in New England and on the West Coast supported this position also. In its report the Interstate Commerce Commission devoted about a page-and-a-half to an exposition of what it termed the "New England Formula" of graduated increases. They felt that it "would adversely affect the movement of traffic

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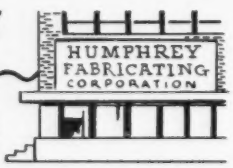

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of the carriers involved since the largest percentage increase would apply on the shorter hauls where competition with motor carriers has the severest impact." Many close students of the present transportation situation feel that the Commission is somewhat unrealistic in this attitude. The manufactured products of Connecticut for the most part constitute high grade, desirable freight moving to centers of population throughout the entire country, rather than being limited to local distribution. The New England Formula was expressly designed to permit the rail carriers to compete more effectively for the long hauls of this high grade traffic. It is rather obvious that the bulk of the short haul business has long since been lost to the flexible service of the motor carriers.

One of the interesting things about this rate investigation is the lack of unanimity among the rail carriers themselves. The Southern Railway through its president, Mr. DeButts said very bluntly "the Southern did not ask for the rate increase and does not intend to raise any rate where it would result in pricing us out of the market and thereby reducing our net income." The result is that a considerable list of heavy moving commodities will not take the increase on traffic within the south, or in many cases on movements to and from the south. This list includes such things as paper products, tires, fresh meat, tobacco, rice, fertilizer, aluminum, manufactured iron and steel articles, textile goods, alcoholic liquors, canned goods, roofing and cement, to name only a few. Naturally, the failure of the south to take increases on such commodities will force competitive action in other territories since most of these items move in considerable volume throughout the entire country. We also find the rail carriers excepting movements from the authorized increases where rates were established to meet motor truck competition.

The Commission's decision to increase class rates in all territories by 12% serve to highlight two rather sad facts: (1) the high level of class rates and the unrealistic ratings set up by dockets 28300 and 28310 have so reduced the movement of class rated items in all territories that regional differences are not important and (2) the Commission seems quite firmly convinced that these rigid uniform class rates are here to stay.

There is no question but that the vigorous participation of the shipping public in this proceeding was one factor in denying the railroads the full measure of the increase they had requested—22% over the December 27, 1956 level. As an aftermath of this

decision, the motor carriers are following the usual pattern of filing for increased rates, allegedly to meet increased costs. However, the shipping public seems determined to insist that motor carriers make out a strong and honest case for any further rate increases at this time. The argument that "the railroads got their's and we need some too" will carry less weight than it ever has.

Physical Examination For Executives

(Continued from page 23)

of management personnel. Published reports suffer from a lack of control data. But, what sorts of employees could one reasonably use as controls? There has been great emphasis by some upon "stress" diseases, but these are not peculiar to managers. Stressful situations arise in all kinds of employment and sometimes even more frequently in the personal lives of workers. Then, too, stress may result from the ineptitude of the worker, or his failure to view his job in proper perspective with his home and family life.

Most published surveys of management health are essentially tabulations of medical diagnoses. There may be honest differences of opinion among competent physicians as to the accuracy of individual diagnoses. The number and nature of the diseases tabulated will depend upon many factors including the interests and training of the examining physician, as well as the time and facilities available to him and to the manager for the examination. The diagnoses may have little or no significance unless impairment of ordinary activity essential to the usual activities of the individual has resulted or may be reasonably anticipated in the near future. Evaluation of the consequences of disease is highly subjective and usually requires a knowledge on the part of the physician of the manager as a person both on and off the job. To add such evaluations of individuals in an attempt to measure the health status of managers or executives as a group presents great, and possibly insuperable, difficulties.

Source of Data

I have some data which suffer from many of the shortcomings enumerated. These data suggest to me, however, that the alarm sounded by some concerning alleged health hazards intrinsic in the management profession is probably not justifiable. It is important to place the problem in proper perspective since it has been reported that college graduates are actually avoiding managerial assignments lest they embark on a hazardous career so far as their personal health is concerned.

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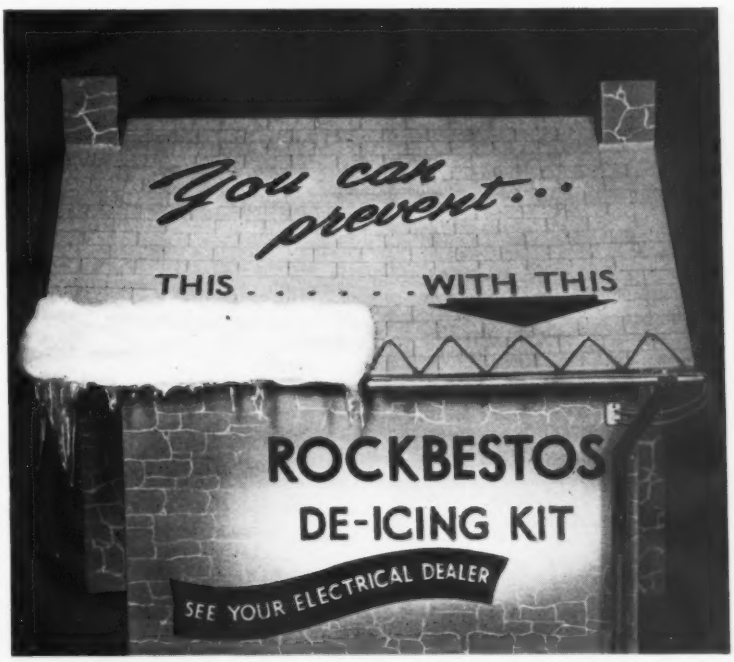

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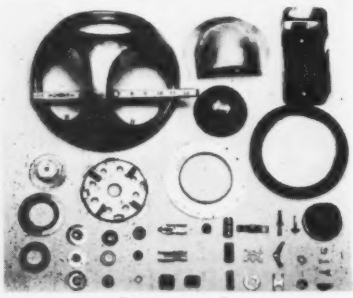

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The data were obtained from a review of the medical records of 352 men working in the headquarters office. Each man has been examined two or more times by one of three Board-certified specialists in internal medicine who work on a full-time basis in the Medical Department. The extent of individual examinations was left entirely to the discretion of the individual doctors. Readily available to them were the usual clinical and laboratory examinations of blood, urine, and stool. X-ray studies, electrocardiography, ballisto-cardiography, basal metabolic tests, proctoscopy and sigmoidoscopy were also available within the department. Consulation with other specialists, such as otolaryngologists, dermatologists, psychiatrists, surgeons, urologists, etc. could be obtained as the examining physician thought desirable without cost to the employee . . . (Tables shown at Annual Meeting and some of the explanation of them not included for lack of space)

Findings

It is not suprising, therefore, that roughly 90% of the individuals had evidences of disease. Yet only 10 to 15% of the group had disability of any degree (usually very minor) for ordinary workaday activity. In view of the relatively small size of the two groups, one could attribute little or no significance of the slight excess of disability among the "executive" group, 13.6% compared with 10.8%.

Tabulation of the individual diagnoses made on members of a group presents some problems. One inevitably finds a large number of diagnoses recorded only one or two times. It is necessary to make some arbitrary groupings in order to maintain a manageable list. This has been done with attention to the clinical significance of the particular diagnoses, as well as

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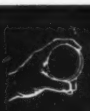

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preconceived or stated ideas as to the prevalence of such disease among management groups.

"Obesity" was recorded about equally frequently in the two groups. "Arthritis and rheumatism" appeared in next greatest frequency. This category, as well as "back" cases included all varieties of chronic musculo-skeletal disease or defect. The greater prevalence in the "executive" group is not immediately explicable since it is not obviously related to occupation. "Hypertensive disease" was also recorded when clinical evidence suggested the accuracy of the diagnosis and corroboration was provided by persistent diastolic blood pressure levels of 90 mm. of Hg. or more. The "executive" group did not manifest "hypertensive" or "arteriosclerotic" disease more frequently than the "control" group. The occurrence of various psychogenic disturbances in 50% more "executives" than "control" employees may or may not be meaningful. No effort has been made to test the statistical significance of the finding since the data probably do not warrant such evaluation. Assuming, however, that the difference in prevalence of emotional disturbances in the two groups is real, I again emphasize that there is not assurance that this is job-related. On the contrary, I suspect strongly that self-imposed dedication to the job often precipitates emotional stresses and strains off the job, particularly in the home. No apparent disability was associated with the emotional illness except when it was coupled with organic disease.

Of particular interest is the similarity of the prevalence within the two groups of obesity, peptic ulceration functional gastrointestinal disturbances and migraine. All of these are suspected to be secondary to, or at least associated with, emotional disturbances.

Morbidity and mortality data are obviously limited for small groups of employees such as previously described. From data available in our clinic, however, we would conclude that cardiovascular disease is responsible for about two-thirds of such cases and neoplastic disease for approximately one-fifth. This is the same as for other males of the same general age distribution.

Conclusion

1. There is no clear-cut evidence that the working enviroment of management or "executive" personnel has any peculiar hazards.
2. In the absence of such demonstrable hazards, it is unwise for the physician to be dogmatic regarding health factors essential to those working as "executives."
3. Nor is it wise for the physician to narrow his health evaluation to any specific variety of disease process.

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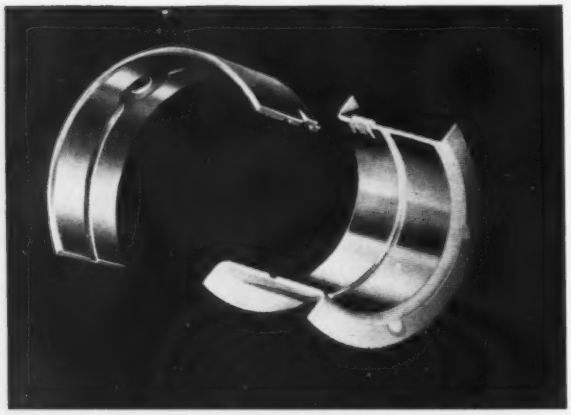

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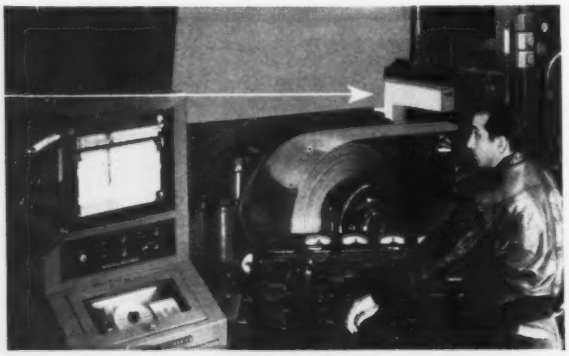

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Public Relations

By A. Carl Messinger
Public Relations Director

♦ IS management using public relations to its best advantage?

Granted that business has leveled off. What better time is there to apply the dollars and cents yardstick to public relations?

Rather than being an operation far removed from profits, public relations can make a positive contribution to them. From where, after all, are profits derived? For most companies it is a matter of holding down production costs and increasing sales.

How do we hold down production costs? Greater productivity is one way. Elimination of scrap and waste is another. A number of companies are challenging production employees to "beat the competition" by showing their people similar products made by competing companies—and comparing the cost. When the employee better understands that the product he works on must compete in the market-place on both quality and price, then the question of wastage of material and time becomes more important to him. This is especially true if linked with job security, a subject with both emotional and mental appeal to most employees.

Employee and community relations —dollars and cents value? Yes, when you consider that a union may be reluctant to strike a company well thought of in the community. Yes, when you consider that the most dangerous situation has been demonstrated to be a poorly informed rank and file.

An example of how dangerous lack of employee information can be is given in a recent editorial of the Elizabeth Daily Journal. Ex-Communist William Wallace is quoted as saying concerning the Singer 1949 work stoppage: " It was easy to get the plant out on strike, too. There were about 20 of us in the Singer Club (a Communist club) at the plant, and we pulled those 9,000 men and women out of that plant without any trouble at all . . . . It was real easy, 5 men could have pulled that plant out."

The editorial concludes: "Never again will the Singer employees be made 'guinea pigs' by the Reds or any other nefarious group that might some day strive for control. That is, they won't if the present safeguard of alertness continues and the union meeting hall is always kept crowded by articulate members. Union men everywhere, please take notice."

Although the editorial doesn't say it, management everywhere might well take note. The Communist threat continues in some enterprises. More widespread is the demand for increased wages without regard to productivity. Although such national leaders as President Eisenhower and Charles R. Sligh, Jr. of NAM point out that increased wages without corresponding productivity is one of the fundamental causes of inflation, for the public to absorb this point will require an enormously greater push than these two articulate individuals can give it. Here is where management needs a sustained communications program to both employees and the community. As the president of your Association phrased it at the Annual Meeting, ". . . curbing inflation will come only with public understanding of the forces that are

(Continued on page 84)

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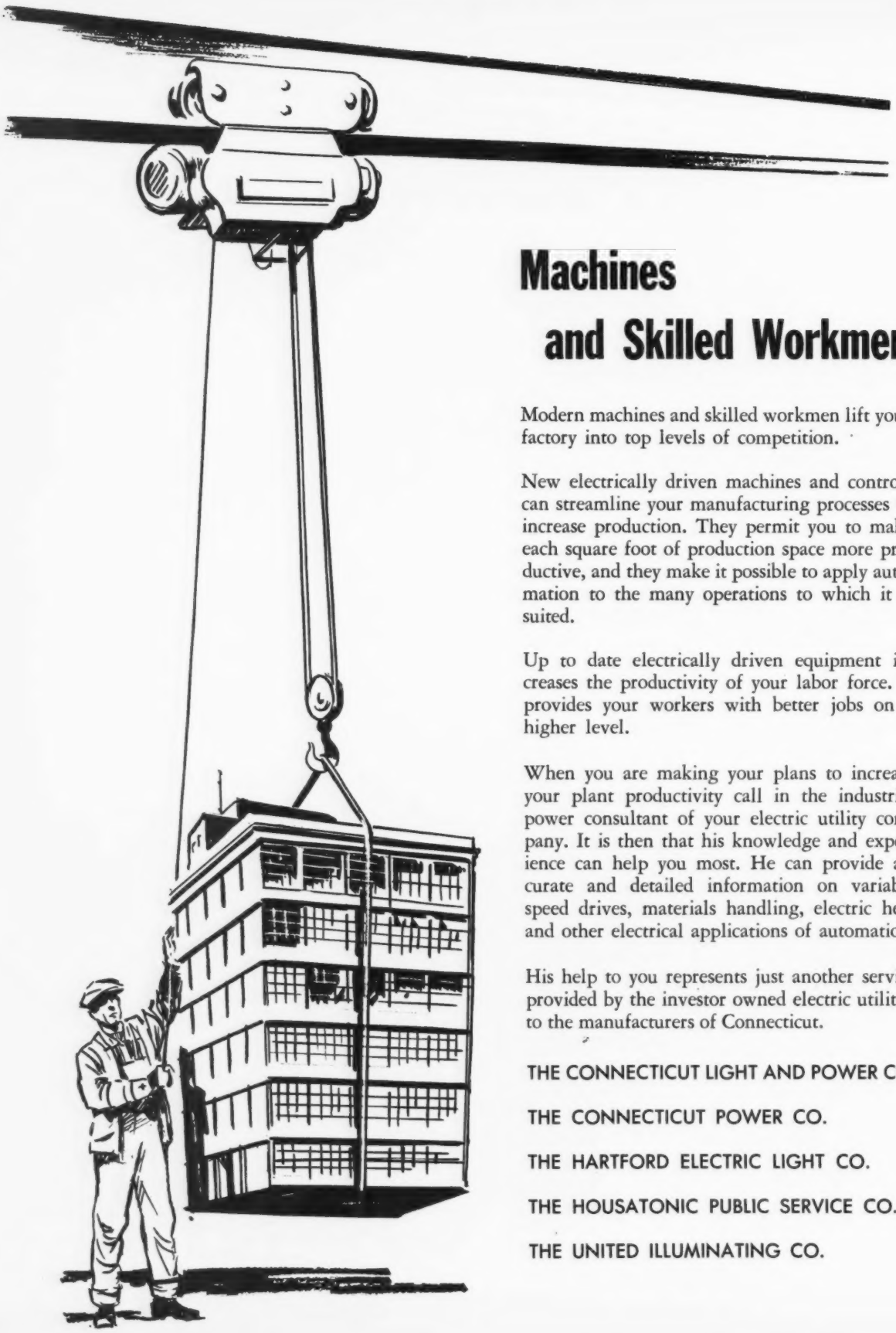

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Accounting Hints

Contributed by
The Hartford Chapter National Association of Cost Accountants

The Make-or-Buy Decision

By ALAN R. BROWN
Norden-Ketay Corporation

♦ THE make-or-buy decision is common to all business, but particularly to those that make a product in detailed parts, such as machinery or electronic apparatus. It is also the type of decision that needs re-making at intervals, since prices and techniques are constantly changing. For example, the more automatic that machinery becomes, the easier it is for a company to absorb a process that previously required skilled help, and the financial analysis to determine the return on the added investment contains fewer intangibles.

Every significant part and subassembly in a product that is manufactured in sufficient quantity should be subjected to a make-or-buy decision at regular intervals. This may seem unnecessary for the parts on whose manufacture the business is largely based, but if the facts are obvious, there is little time lost in analysis, and the opportunity has been taken to compare the firm's position against competition. A comprehensive program of make-or-buy studies is guaranteed to give a few surprises.

However, it is unwise to plan this program of analysis so that it depends upon the spare time of production and purchasing personnel, who are rightfully concerned first with shipping existing orders. Since there are a number of considerations that are financial in nature, it is suggested that the accounting department be given the responsibility for preparing data on which management can base make-or-buy decisions. A financial analyst should be given the task of systematically examining all parts of the product, with special assignments to emergency cases as they arise.

In this, the analyst will need assistance and direction from production and purchasing employees. These people can serve their business well by keeping themselves informed on new processes and improvements initiated by other companies. Visits to other plants are often valuable. But there must be an independent responsibility for converting these ideas and projects into reports that state the problem in a manner that permits, even forces, decision. The financial analyst satisfies this need.

The first measuring device that the analyst will need is a revised overhead percentage that, when combined with

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direct material and labor costs, will give the total direct cost of manufacturing a part. All fixed or period expense must be removed from the total overhead rate; any advantage in manufacturing instead of purchasing will contribute to the absorption of fixed expense and beyond that to profit.

The analyst will scan each overhead account for its fixed element. In general, items such as expendable tools, factory supplies, and spoiled work vary directly with volume of production, and items such as depreciation, rent, and property taxes do not vary with volume. There are a number of accounts that have both fixed and variable elements. The most difficult element to classify is the salaries of overhead employees; each supervisor must be asked to determine which of his functions is permanent and how many employees are needed to perform them. Also, the analyst must revise his direct overhead percentage occasionally, since subsequent decisions can alter the proportion of fixed and variable expense. Fixed expense in the overhead of a metal products manufacturer will usually be about one-third of total overhead. This will vary considerably among different industries.

The analyst must also beware of using this direct overhead expense percentage indiscriminately. It may be that a given part requires tools and supplies for its manufacture that are much more expensive than the overhead allowance provides. The object is to estimate the actual direct cost of a part as closely as possible, and the automatic application of an overhead rate is permissible only in the analysis of the least expensive parts. The overhead rate based on variable expense is only a rule of thumb; every one of the individual problems will vary from the rule in some degree.

There are other factors to which the analyst must give consideration. Some of these can be given numerical values in the make-or-buy equation, others will be the unknowns.

1. Whether or not the favorable balance for manufacture or purchase will be of long duration. This does not lend itself to close computation, but the state of an art of manufacture may be changing rapidly, and if the balance is not weighted on either side, even a slight change in technique might reverse previous results. Thus, the printed circuit must have caused many changes in decisions to make-or-buy in the electronic industry long before it was actually put to actual use.

2. The mathematical advantage of purchase or manufacture must be supplemented by consideration for the effect of change upon the company's investment. The advantage of manufacturing a part previously purchased must be sufficient to provide the required rate of return on the necessary investment in machines, floor space, and inventory. When a vendor possesses advantages that cannot be matched by the replacement of equipment or the improvement in skills, the investment in existing machines can be eliminated, with the result that the return on total investment is increased.

3. The make-or-buy computation must include an estimate of the additional expense and uncertainty of purchasing. The purchase price alone is an incomplete cost. There is the expense of freight and sales taxes, of negotiating with suppliers, of issuing the purchase orders and other forms, and of the additional burden on accounts payable. Then there are the intangibles, such as the effect of late delivery, the expense of rejects, and the lack of control over scheduling. These factors must be added to the purchase price of the part for purposes of comparison. Finally, there is the probability that future improvements in manufacture will accrue to the vendor with a retarded effect on price.

The collection and presentation of this data should not be entrusted to those who are not qualified or who have a bias for one side or the other due to their position in the company.

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Spotlight on the Future

Contributed by National Association of Purchasing Agents
By Chester F. Ogden, Manager of Purchases
The Detroit Edison Company

General Business Conditions

♦ THE general world feeling of uncertainty is reflected this month in the reports from our members. The long-range effects of Sputnik are unknown. Defense programs are being reviewed. Our economy seems to be fighting inflation and deflation at the same time. Competition is tough but, over-all, the total volume of business remains near a record high. No one is sure of the significance of the stock market sag. But, whatever the reasons, many of our reporting members have lost some of last month's optimism. Production and new orders are off from September, but about the same as reported in July.

However, any general statement as to how our members feel about business would be challenged by many. Some purchasing executives report very optimistically about their present position and the future. Others paint a dreary picture. Clearly, all industries are not seeing the current business situation in the same way.

Except for the downward move in many of the raw material markets, commodity prices are at the most stable level reported for many months. Buyers believe that ample supplies will be available and, on many items, price reductions are a real possibility. Inventories remain unchanged, with most feeling that present levels are satisfactory.

Somewhat gloomy is the reported reduction in the work force. This reflects both lower production schedules and reductions put into force to effect needed economies. Buying policy continues to show the unwillingness of purchasing executives to commit their companies very far into the future. Most significant is the drop in the number reporting extended purchases of capital items.

The special question this month asked if purchasing executives were finding any increase in the number of distressed market offerings. During the past sixty days, 66% report that the number of such offerings has been normal, 27% say that they have been above normal, and 7% say they have been less than usual.

Commodity Prices

Weaknesses in the nonferrous metal group and generally increased competition have resulted in a marked shift in the price situation in the October reports. Only 31% report higher prices, as against 51% last month. 64% say they are the same, compared to 42% so reporting in September. Many state they believe increased competition will hold prices in check and prevent further rises, at least through the fourth quarter.

Inventories

There is evidence that most purchas-

**Composite opinion of purchasing agents who comprise the N.A.P.A. Business Survey Committee, whose Chairman is Chester F. Ogden, Manager of Purchases, The Detroit Edison Company, Detroit, Michigan.*

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Charles H. Walters, *President*

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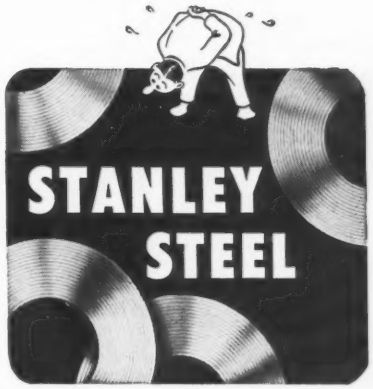

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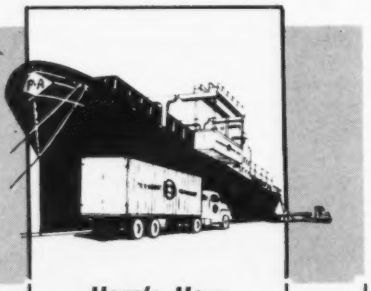

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ing executives believe they now have their inventories in tune with present needs. None report any desire to increase stocks as a result of recent price weakness in certain commodities. On the other hand, most state that, over the past few months, they have reduced materials on hand, so that further actions should be unnecessary, unless present production schedules are materially cut.

Employment

The October summaries show a further reduction in employment, with 35% reporting fewer workers against 28% a month ago. Our reporting members say that these work force reductions are the result of lower production schedules and of efforts to effect economies. For the first time in many months, there is no evidence of any inability to secure skilled workers. Also, there is a complete absence of any reports of strikes this month.

Buying Policy

Production material buyers continue to shorten the time for which they are willing to make forward commitments. This month, 35% are in the 30-day range, 38% in the 60-day range, and 20% in the 90-day range. Only on those very few items where shortages exist is there a willingness to go beyond 90 days.

MRO buyers are following a similar cautious pattern in their forward purchases. This month, 42% are in the 30-day range, 24% in the 60-day range, with 26% willing to gamble on a hand-to-mouth basis. Only 6% extend their commitments into the 90-day range, with 2% six months or over.

Capital expenditures have traditionally been characterized by a willingness to commit well into the future. For this reason, the number of buyers who report in the 120 days-plus category have always been significant. In February, 1956, 68% of the committee were in this range. There has been a gradual downward trend since then, to the point where only 44% are in this range in October, 1957. This is the lowest percentage reported in this category since the change in the method of recording buying policy, in May, 1955.

Specific Commodity Changes

Not much support for the items reported "up" in price this month.

On the up side are: Isolated steel items, multiwall kraft bags, kraft papers, hand tools, rubber, ball and roller bearings and resins.

On the down side are: Copper, lead, steel scrap, tin, lubricating oils, and sulphur.

In short supply are: Nickel, steel plates, structural and beams.

Business Tips

Contributed by
School of Business Administration, University of Connecticut

A Second Look At Incentives

By George Asherman
Associate Professor of Industrial Administration

♦ THE value of wage incentives in providing the means of motivation for greater productivity, coupled with high wages and job satisfaction, will be recognized and appreciated to a greater degree, in the coming years. Since management is faced with the prospect of contributing to a rise in the standard of living through more products at lower cost, as well as through shorter working hours, there can only be one answer, and that is—greater productivity. Wage incentives, along with technological improvement and the so-called "newer" managerial techniques, will provide the means for the productivity increase.

Present management thinking seems to be in terms of automation, operations research, programming, computers, integrated data processing, and other comparatively new and sophisticated management tools. We may, however, ask ourselves, "Have we become so obsessed with the current developments, that we have forgotten about the availability and usefulness of our older managerial tools?" Perhaps a second look at all available techniques is in order, as we begin the campaign for greater productivity. For example, let us select wage incentives, truly an old technique, as the object of our second look.

It may be well to briefly review the basic nature of incentive, for a better understanding of this vital force. The universality of incentive is clearly evident in nature. It is a prime mover in life. From the time an infant is born, he is possessed with a driving force to survive. He quickly learns that by extra physical effort, he can get food and comfort. Throughout the individual's life his actions are governed to some degree by incentive. Incentives have both a positive and negative aspect. Webster's New International Dictionary in defining incentive or stimulus, states "hope is a stimulus to labor." Through the positive aspect; that is, the hope or satisfaction of attaining a desirable position, gaining prestige, possessions, security, and we may even add the pleasure of eating well, man will go on to great achievement. The negative force; that is, fear of losing a job, possessions, prestige, security, and the fear of the pain of hunger, will spur man on to hold what he has, or at least achieve the minimum essentials. He will often gain the bare minimum through the negative aspect, then a transition from fear to hope and confidence, places him under the positive influence.

The question now arises regarding the type of incentive to be utilized,

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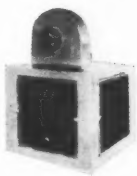

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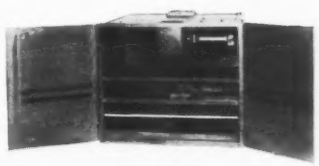

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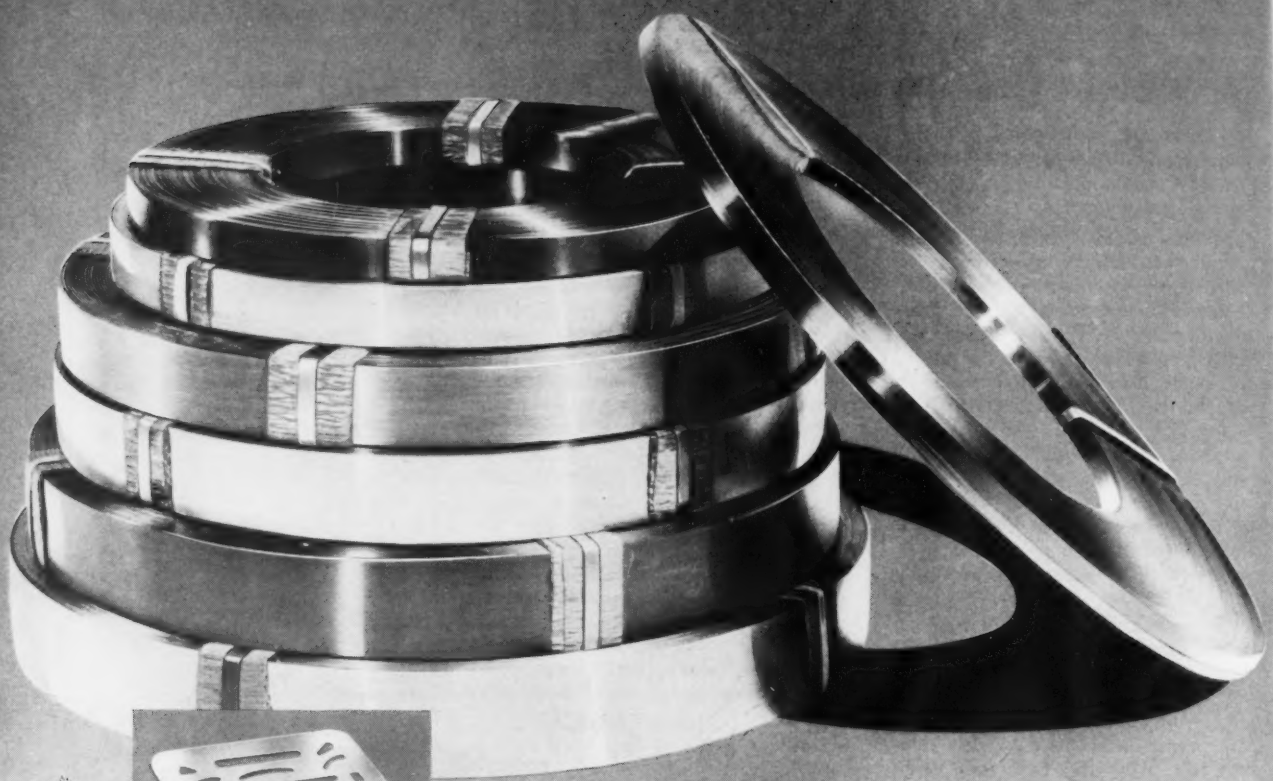

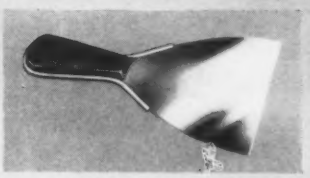

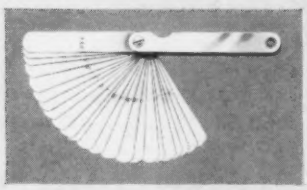

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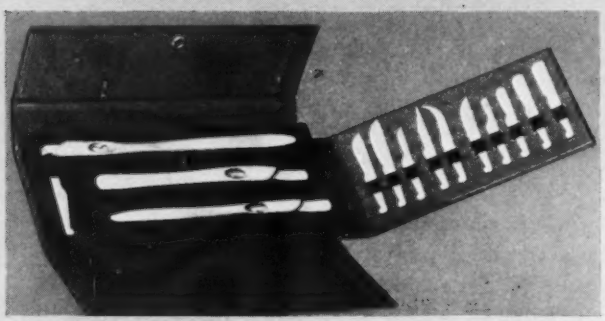

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in order to achieve the goal of higher productivity. The author firmly believes, on the basis of some twenty years work with incentives, that the financial incentive is the most effective type. True, we have witnessed an increase in productivity through non-financial incentives such as improved working conditions, better human relations, employee participation in management problems, and other highly effective motivating forces. We may stimulate the employee to a certain degree through the use of these methods, but his ultimate interest is take-home pay. He still considers more money in the pay envelope as the most important reason for producing more for his employer.

Management seems to be avoiding the financial incentive, particularly where militant unions are involved. The Director of Industrial Relations of a large organization recently told the author that, "incentives bring more trouble than good—because as standards get loose, the whole system deteriorates into a handout, and the union fights you tooth and nail when you attempt to correct the situation." The author agrees that loosening of standards is a problem and that this situation represents only one of many pitfalls. However, we must ask ourselves such questions as—why did the standards get loose in the first place, and why didn't management have a definite written agreement with the union regarding standards and all other pertinent factors, prior to the installation of the plan. Incentives can be compared with dynamite. When used properly, dynamite is an indispensable tool, but if placed in the hands of the unexperienced or incompetent, it can be disastrous.

Awareness and a reasonable sound understanding of incentive and motivation principles do not represent a complete background for management. Such awareness and understanding must be backed by comprehensive training and experience in methods of application. There are many proven wage incentive techniques available for installation. However, frequent writings on specific plans which proved successful, as well as claims by some wage incentive practitioners, create the impression that all that is necessary is a stereotyped repetition of a program. The dynamic nature of incentive application precludes a "cook-book" approach. Wage incentive application requires skill, experience, integrity, and determination on the part of management to make the plan successful. A true professional approach is necessary. There is no "one best" wage incentive plan or combination of plans which is universally applicable. The usual approach of using specific incentive plans because they happened to be successful elsewhere, does not guarantee a satisfactory installation. Conditions vary from one enterprise to the next, as well as within each enterprise, therefore, the approach to a wage incentive installation must be compatible with the needs. Changes in technology, organization, government regulations and controls, as well as changes in the needs, desires and attitudes of the individual employee and group, have made the conditions more pronounced. We must therefore, emphasize profound understanding, professional skill, and experience, for both the installation and maintenance of our wage incentive programs.

As part of the second look at incentives, this time with a side glance at the future, we want to know how incentives will fit into the picture as automation takes hold. We are told that increasing numbers of workers now doing routine jobs, will be displaced by automatic equipment. The fully automated operations will only need servicing by relatively few highly skilled technicians. Why be concerned with productivity—do the automatic machines need incentives? When there is a breakdown or stoppage on our automatic process, it is imperative that the equipment be back in operation in the shortest possible time. Because of large capital outlays required for automatic equipment, the cost of shutdowns in the fully automated enterprise is prohibitive. What methods of motivation will be utilized for the technicians in order to insure that the equipment is kept in operation, and any repairs and adjustments made with the least amount of delay? The financial incentive most assuredly warrants strong consideration.

Flying Shears by Hallden

(Continued from page 8)

Students having won Hallden scholarships after a three-year pre-engineering course at Trinity, will then go either to Rensselaer Polytechnic Institute or Columbia University to complete their training.

Mr. Hallden feels the basic value of an education in the humanities is necessary to avoid narrow thinking engineers.

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Other officers of the Hallden Machine Company are: John Upton, Jr., vice president and general manager; M. M. Hallden, secretary and assistant treasurer; and John C. Parrish, assistant secretary.

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IT'S MADE IN CONNECTICUT

EDITOR'S NOTE: This department, giving a partial list of peace-time products manufactured in Connecticut, seeks to facilitate contacts between prospective purchasers in domestic or foreign markets and producers. It includes only those listings purchased by Connecticut manufacturers. Interested buyers may secure further information by writing this department. Listing rates (12-time insertions only): $6.00 for single listing. When several listings are ordered for insertion at the same time following multiple rates apply: $10 for two and $2.00 each beginning with the third.

(Advertisement)

Accounting Forms
Baker-Goodyear Co The — Branford

Accounting Machines
Underwood Corporation — Bridgeport

Adding Machines
Underwood Corporation — Bridgeport

Adhesives
Polymer Industries Inc — Springdale
Raybestos Division Raybestos-Manhattan Inc — Bridgeport

Advertising Mats
ADS Inc Div CSW Plastic Types Inc — Hartford
Lockwood Sons Inc Wm H — Hartford

Advertising Plates
ADS Inc Div CSW Plastic Types Inc — Hartford
Lockwood Sons Inc Wm H — Hartford

Advertising Specialties
H C Cook Co The 32 Beaver St — Ansonia
Halco Co — New Haven

Aerosol Products
Bridgeport Brass Company — Bridgeport

Air Compressors
Spencer Turbine Co The — Hartford

Air-Conditioning
Dunham-Bush Inc — West Hartford

Air Ducts
Wiremold Co The (Retractable) — Hartford

Air Heaters—Direct Fired
Peabody Engineering Corporation — Stamford

Air Impellers
The Torrington Manufacturing Co — Torrington

Aircraft
Sikorsky Aircraft Division United Aircraft Corporation (helicopters) — Bridgeport

Aircraft Accessories
Chandler Evans Div Pratt & Whitney Co Inc (Piston and Jet Engine Accessories—Carburetors, Fuel Controls, Afterburner Regulators, Pumps, Servomechanisms and Protek Plugs) — West Hartford
Fenn Mfg Co The (Hardened and Ground Gears assemblies) — Newington
Gabb Special Products Inc (filler caps—pressure fuel servicing systems) — Windsor Locks
Hamilton Standard Div United Aircraft Corp (propellors and other aircraft equipment) — Windsor Locks
Manning Maxwell & Moore Inc (aircraft pressure switches and jet engine afterburner control systems) — Danbury

Aircraft Engine Timing Tools
Gabb Special Products Inc — Windsor Locks

Aircraft Engines
Lycoming Division Avco Manufacturing Corp — Stratford
Pratt & Whitney Aircraft Div United Aircraft Corp (aircraft) — East Hartford

Aircraft Fasteners
Bland Burner Co The Thread Products Div — Hartford
Scovill Manufacturing Company (PANELOC Aircraft Fasteners) — Waterbury

Aircraft Instruments
Gorn Electric Company Inc — Stamford

Aircraft—Repair & Overhaul
Airport Department Pratt & Whitney Aircraft Division — Rentschler Field East Hartford

Aircraft Studs & Bolts
Britton Mfg Co Inc — Hartford

Aircraft Test Equipment
United Manufacturing Co Division of The W L Maxson Corp — Hamden

Alumilite Aluminum Sheets
Leed Co The H A — Hamden

Aluminum Bronze Castings
Knapp Foundry Company Inc — Guilford

Aluminum Castings
Eastern Malleable Iron Company The — Naugatuck
Newton-New Haven Co 688 Third Avenue — West Haven
Charles Parker Company The — Meriden

Aluminum Die Castings
Stewart Die Casting Div. Stewart-Warner Corp. — Bridgeport

Aluminum Extrusions
Bridgeport Brass Company — Bridgeport

Aluminum Forgings
Bridgeport Brass Company — Bridgeport
Consolidated Industries Inc — West Cheshire
Scovill Manufacturing Company — Waterbury 91

Aluminum Ingots
Lapides Metals Corp — New Haven

Aluminum Sand Castings
Bridgeport Deoxidized Bronze Corp — Bridgeport

Aluminum—Sheet and Rod
Scovill Manufacturing Company — Waterbury

Aluminum—Sheets & Coils
United Smelting & Aluminum Co Inc — New Haven

Ammunition
Arms and Ammunition Div Olin Mathieson Chemical Corp — New Haven

Anodizing
Aluminum Finishing Co. — Bridgeport
Comco Inc Div of Enthone Inc — New Haven
Leed Co The H A — Hamden

Anodizing Equipment
Comco Inc Div of Enthone Inc — New Haven

Asbestos
Auburn Manufacturing Company The (gaskets, packings, wicks) — Middletown
Tsingris Die Cutting Corp. (die cutting) — Waterbury

Asarcon Bronze
Derby Castings Company, The — Seymour
Knapp Foundry Company Inc (bushing & bearing stock) — Guilford

Assemblies—Small
Barnes Co The Wallace Div Associated Spring Corp — Bristol
Greist Manufacturing Co The — New Haven
Humason Mfg Co The — Forestville
J H Sessions & Son — Bristol

Automatic Buffing & Polishing Machines
Harper Buffing Machine Company The — East Hampton

Auto Cable Housing
Wiremold Company The — Hartford

Automatic Control Instruments
Bristol Co The (temperature, pressure, flow, humidity, time) — Waterbury

Automobile Accessories
Kilbourn-Sauer Company (lights and other accessories) — Fairfield

Automotive Bodies
Metropolitan Body Company — Bridgeport

Automotive Parts
Bridgeport Thermostat Div Robertshaw—Fulton Controls Co (automobile thermostats) — Milford
Eis Manufacturing Co (Hydraulic and Mechanical) — Middletown
Raybestos Division of Raybestos-Manhattan Inc (Brake Lining, Lined Brake Shoes, Clutch Facings, Automatic Transmission Parts, Fan Belts, Radiator Hose and Miscellaneous Rubber) — Bridgeport
Tsingris Die Cutting Corp. (die cutting) — Waterbury

Automotive & Service Station Equipment
Scovill Manufacturing Company (Canned Oil Dispensers) — Waterbury 91

Automotive Tools
Eis Manufacturing Company — Middletown

Bags—Paper
Continental Can Co Paper Container Div — Kensington

Bakelite Moldings
Watertown Mfg Co The — Watertown

Balls
Abbott Ball Co The (steel bearing and burnishing) — Hartford
Hartford Steel Ball Co The (steel bearing and burnishing, brass, bronze, monel, stainless aluminum) — Hartford
Kilian Steel Ball Corp The — Hartford
Pioneer Steel Ball Company Inc (steel for bearings, burnishing, graining; also brass, bronze and stainless) — Unionville
Superior Steel Ball Co Inc (steel bearings & burnishing material) — New Britain

Banbury Mixers
Farrel-Birmingham Company Inc — Ansonia

Barrels
Abbott Ball Co The (burnishing and tumbling) — Hartford
Esbec Barrel Finishing Corp (burnishing & tumbling) — Byram
Hartford-Steel Ball Co The (tumbling) — Hartford

Baskets—Wire
Rolock Inc — Fairfield

Bathroom Accessories
Charles Parker Co The — Meriden

Batteries
Electrical Div Olin Mathieson Chemical Corp (flashlight, radio, hearing aid and others) — New Haven

Bearing Testers
Sperry Products Inc — Danbury

Bearings
Barden Corporation The (ball) — Danbury
Fafnir Bearing Co (ball) — New Britain
Marlin-Rockwell Corporation — Plainville
New Departure Div of General Motors (ball) — Bristol
Norma-Hoffman Bearings Corp (ball and roller) — Stamford

Bellows Assemblies
Bridgeport Thermostat Div Robertshaw—Fulton Controls Co — Milford

Bellows—Metallic
Bridgeport Thermostat Div Robertshaw—Fulton Controls Co — Milford

Bells
Bevin Brothers Mfg Co — East Hampton
Gong Bell Co The — East Hampton
N N Hill Brass Co The — East Hampton

Belt Fasteners
Saling Manufacturing Company (patented self-aligning) — Unionville

Belting
Hartford Belting Co — Hartford
Russell Mfg Co The — Middletown

Belts
Russell Mfg Co The (airplane safety, air cargo, endless) — Middletown
Russell Mfg Co The (transmission and conveyor, woven stitched canvas and rubber) — Middletown

Bends—Pipe or Tube
National Pipe Bending Co The — 160 River St New Haven

Bicycle Coaster Brakes
New Departure Div General Motors Corp — Bristol

Bicycle Sundries
New Departure Div General Motors Corp — Bristol

Blacking Salts for Metals
Enthone Inc — New Haven
Mitchell-Bradford Chemical Co — Bridgeport

Black Oxide Finishing
Black Oxide Inc — New Britain

Black Oxide Treatment
Bennett Metal Treating Co The — 1045 New Britain Ave — Elmwood

Blades
Capewell Manufacturing Company Metal Saw Division (hack saw and band saw) — Hartford

Blocks
Howard Company (cupola fire clay) — New Haven

Blower Fans
Colonial Blower Company — Plainville
Spencer Turbine Co The — Hartford

(Advt.)

IT'S MADE IN CONNECTICUT

Blower Systems
Colonial Blower Company — Plainville
Ripley Co — Middletown

Blower Wheels
Torrington Manufacturing Company The — Torrington

Blueprints and Photostats
Joseph Merritt & Co — Hartford

Boilers
Bigelow Co The — New Haven
General Electric Company (Residential oil and gas fired steam and hot water) — Bridgeport

Bolts and Nuts
Clark Brothers Bolt Co — Milldale

Boring Tools
Atrax Company The (solid carbide) — Newington

Box Board
Bird & Son Inc — New Britain
Continental Can Co., Boxboard and Folding Carton Division — Montville
Federal Paper Board Co Inc — Montville, New Haven & Versailles
Lydall & Foulds Paper Co The — Manchester
Robertson Paper Box Co — Montville
New Haven Board and Carton Co The — New Haven

Boxes
Bird & Son Inc (corrugated, solid fibre, cleated containers) — New Britain
Connecticut Container Corporation — New Haven
Continental Can Co., Fibre Drum and Corrugated Box Division — Portland
Merriam Mfg Co (steel cash, bond, security, fitted tool and tackle boxes) — Durham
Middletown Mfg Co (metal) — Middletown
Warner Bros Co The (Acetate, Paper, Acetate and Paper Combinations, Counter Display, Setup) — Bridgeport

Boxes and Crates
City Lumber Co of Bridgeport Inc The — Bridgeport

Boxes—Folding
Leshine Carton Co — Branford

Boxes—Metal
Merriam Mfg Co (Bond and Security, Cash and Utility, Personal Files and Drawer Safes) — Durham
Scovill Manufacturing Company (aluminum, brass, bronze, copper-cosmetic, drug, hair pin, ointment, pill, powder, rouge, vanity) — Waterbury

Boxes—Paper—Folding
Atlantic Carton Corp — Norwich
Bridgeport Paper Box Co — Bridgeport
Carpenter-Hayes Paper Box Co Inc — East Hampton
Continental Can Co., Boxboard and Folding Carton Division — Montville
Curtis & Sons Inc S — Sandy Hook
Folding Cartons Incorporated (paper, folding) — Versailles
H J Mills Inc — Bristol
National Folding Box Co Div Federal Paper Board Co Inc (paper folding) — New Haven and Versailles
New Haven Board and Carton Co The — New Haven
Robertson Paper Box Co — Montville
Warner Bros Co The — Bridgeport

Boxes—Paper—Setup
Bridgeport Paper Box Co — Bridgeport
Heminway Corporation The — Waterbury
H J Mills Inc — Bristol
Strouse Adler Company The — New Haven
Warner Bros Co The — Bridgeport

Braid—Elastic & Non-elastic
Essex Mills Inc — Essex

Brake Cables
Eis Manufacturing Co — Middletown

Brake Linings
Raybestos Division of Raybestos-Manhattan Inc (Automotive and Industrial) — Bridgeport
Russell Mfg Co The (all types) — Middletown

Brake Service Parts
Eis Manufacturing Co — Middletown

Brass & Bronze
American Brass Co The (sheet, wire, rods, tubes) — Waterbury
Bridgeport Rolling Mills Company (coil, sheet, strip) — Bridgeport
Bridgeport Brass Company (sheet, rod, wire and tubing) — Bridgeport
Bristol Brass Corp The (sheet, wire, rods) — Bristol
Chase Brass & Copper Co — Waterbury
Miller Company The (phosphor bronze and brass in sheets, strips, rolls) — Meriden
Plume & Atwood Mfg Co The (sheet, wire, rod) — Thomaston
Scovill Manufacturing Company — Waterbury 91
Seymour Mfg Co The (strip, sheet & wire) — Seymour
Tinsheet Metals Co The (sheets and rolls) — Waterbury
Western Brass Mills Division of Olin Industries Inc (sheet, strip) — New Haven

Brass & Bronze Ingot Metal
Mitchell Smelting & Refining Co Inc — Botsford
Plume & Atwood Mfg Co The — Thomaston
Whipple and Choate Company The — Bridgeport

Brass, Bronze, Aluminum Castings
Derby Castings Company, The — Seymour
Charles Parker Company The — Meriden
Victors Brass Foundry Inc — Guilford

Brass Goods
American Brass Company The — Waterbury
Plume & Atwood Mfg Co The (to order) — Waterbury
Rostand Mfg Co The (Ecclesiastical Brass Wares) — Milford
Scovill Manufacturing Company (to order) — Waterbury 91
Western Brass Mills Div Olin Mathieson Chemical Corp — New Haven

Brass Mill Products
American Brass Company The — Waterbury
Bridgeport Brass Co — Bridgeport
Chase Brass & Copper Co — Waterbury
Plume & Atwood Mfg Co The — Thomaston
Scovill Manufacturing Company — Waterbury 91
Western Brass Mills Div Olin Mathieson Chemical Corp — New Haven

Breathing Equipment
Cycle-Flo Company The — Milford

Brick-Building
Donnelly Brick Co The — New Britain

Bricks—Fire
Howard Company — New Haven
Mullite Refractories Co The — Shelton

Bright Wire Goods
Sargent & Company (Screw Eyes, Screw Hooks, Cup Hooks, Hooks and Eyes, C H Hooks) — New Haven

Broaching
Hartford Special Machinery Co The — Hartford

Bronze & Aluminum Castings
Charles Parker Co — Meriden
Knapp Foundry Company Inc (rough or machined) — Guilford

Bronze Sand Castings
Bridgeport Deoxidized Bronze Corp — Bridgeport

Brooms—Brushes
Fuller Brush Co The — Hartford

Buckles
B Schwanda & Sons — Staffordville
G E Prentice Mfg Co The — Kensington
Hawie Mfg Co The — Bridgeport
North & Judd Manufacturing Co — New Britain
Patent Button Co The — Waterbury
Risdon Manufacturing Co John M Russell Div — Naugatuck

Buffing & Polishing Compositions
Apothecaries Hall Company Division The Hubbard Hall Chemical Company — Waterbury
Lea Mfg Co — Waterbury

Building Materials
City Lumber Co of Bridgeport Inc — Bridgeport

Burners
Plume & Atwood Mfg Co The (kerosene oil lighting) — Thomaston

Burners—Automatic
Peabody Engineering Corporation — Stamford

Burners—Coal and Oil
Peabody Engineering Corporation (Combined) — Stamford

Burners—Gas
Peabody Engineering Corporation (Blast Furnace) — Stamford

Burners—Gas and Oil
Peabody Engineering Corporation (Combined) — Stamford

Burners—Refinery
Peabody Engineering Corporation (For Gas and Oil) — Stamford

Burnishing
Abbott Ball Co The (Burnishing Barrells and Burnishing Media) — Hartford
Pioneer Steel Ball Company Inc (balls, cones, other metallic shapes) — Unionville

Burs
Atrax Company The (carbide) — Newington
Pratt & Whitney Co Inc — West Hartford

Busways
Distribution Assemblies Department General Electric Co — Plainville

Buttons
B Schwanda & Sons — Staffordville
Frank Parizek Manufacturing Co The — Putnam
Patent Button Co The — Waterbury
Scovill Manufacturing Company (Uniform and Tack Fasteners) — Waterbury 91
Waterbury Companies Inc (Uniform and Fancy Dress) — Waterbury

Cabinets
Charles Parker Co The (medicine) — Meriden

Cabinet Work
Hartford Builders Finish Co — Hartford

Cable—Asbestos Insulated
Rockbestos Products Corp — New Haven

Cable-Interlocked Armor
General Electric Company — Bridgeport

Cable—Nonmetallic Sheathed
General Electric Company — Bridgeport

Cable—Service Entrance
General Electric Company — Bridgeport

Cages
Andrew B Hendryx Co The (bird and animal) — New Haven

Cams
American Cam Company Inc — Hartford
Hartford Special Machinery Co The — Hartford
Rowbottom Machine Company Inc — Waterbury

Cams, 2 Dimensional
Mallory Industries, Inc. — West Hartford
Parker-Hartford Corporation — Hartford

Cams, 3 Dimensional
Mallory Industries, Inc. — West Hartford
Parker-Hartford Corporation — Hartford

Canvas Products
F B Skiff Inc — Hartford

Capacitors
Electro Motive Mfg Co Inc The (mica & trimmer) — Willimantic

Carbide Drawing Dies
State Products Co (eyelet special shape dies) — Oakville

Carbide Shape Dies
Thomaston Tool & Die Co (any form) — Thomaston

Carbide Tools
Atrax Company The (solid) — Newington
Precision Tool & Die Co — Waterbury

Carbon Pile Type Resistors
Engineered Metals — Manchester

Card Clothing
Standard Card Clothing Co The (for textile mills) — Stafford Springs

Card Indexes
Wassell Organization Inc — Westport

Carpenter's Tools
Sargent & Company (Planes, Squares, Plumb Bobs, Bench Screws, Clamps and Saw Vices) — New Haven

Carpet
B F Goodrich Sponge Products Division — Shelton

Carpet Cushion
B F Goodrich Sponge Products Division — Shelton

Carpets and Rugs
Bigelow-Sanford Carpet Co — Thompsonville

Casters
Bassick Company The (Industrial and General) — Bridgeport

Casters—Industrial
George P Clark Co — Windsor Locks

Castings
Connecticut Foundry Co (grey iron) — Rocky Hill
Connecticut Malleable Castings Co (malleable iron castings) — New Haven
Charles Parker Company The (brass, bronze, aluminum) — Meriden
Ductile Iron Foundry Inc — Stratford
Eastern Malleable Iron Company The (malleable iron, metal and alloy) — Naugatuck
Farrel-Birmingham Company Inc (Mechanite, Nodular, Iron, Steel) — Ansonia
H K Engineering Laboratories Inc (centrifugal steel mold) — East Haddam
Hartford Electric Steel Corp The (stainless steel) — Hartford
Plainville Casting Company (gray, alloy and high tensile irons) — Plainville
Malleable Iron Fittings Co (malleable iron and steel) — Branford
McLagon Foundry Co (grey iron) — New Haven
Newton-New Haven Co (zinc and aluminum) — 688 Third Ave West Haven
Nutmeg Crucible Steel Co (steel) — Branford
Producto Machine Company The — Bridgeport
Scovill Manufacturing Company (Brass & Bronze) — Waterbury 91
Turner & Seymour Mfg Co The (gray iron, semi steel and alloy) — Torrington
Union Mfg Co (grey iron & semi steel) — New Britain
Waterbury Foundry Company The (highway & sash weights) — Waterbury
Wilcox Crittenden & Co Inc (gray iron and brass) — Middletown

(Advt.)

IT'S MADE IN CONNECTICUT

Castings—Investment
Arwood Precision Casting Corp — Groton

Cement-filler
Clark Cast Steel Cement Company (iron) — Clinton

Cements—Refractory
Mullite Refractory Co The — Shelton

Centerless Grinding
Winsted Centerless Co — Winsted

Centers
Ready Tool Co The (anti friction, carbide tipped, high speed) — Bridgeport

Chain
Risdon Manufacturing Co John M Russel Div — Naugatuck
Turner and Seymour Mfg Co The (weldless, sash, jack, safety, furnace, universal, lion and cable) — Torrington

Chain—Bead
Auto-Swage Products Inc — Shelton
Bead Chain Mfg Co The — Bridgeport

Chain—Power Transmission and Conveying
Whitney Chain Company — Hartford

Chairs
The Hitchcock Chair Company — Riverton

Chemical Analysis
State Testing Laboratory — Bridgeport

Chemical Manufacturing
Carwin Company The — North Haven

Chemicals
Apothecaries Hall Company Division — Waterbury
The Hubbard Hall Chemical Company — Waterbury
Carwin Company The — North Haven
Macalaster Bicknell Company — New Haven
MacDermid Incorporated — Waterbury
Naugatuck Chemical Division United States Rubber Co — Naugatuck
New England Lime Company — Canaan
Pfizer & Co Inc Chas — Groton
United States Chemical Corp (maintenance and powdered hand soap, floor waxes, cleaners, disinfectants, fuel additives) — New Haven

Chemicals—Agriculture
Naugatuck Chemical Division United States Rubber Co (insecticides, fungicides, weed killers) — Naugatuck

Christmas Light Clips
Foursome Manufacturing Co — Bristol

Chromium Plating
Chromium Corp of America — Waterbury
Chromium Process Company The — Shelton
City Plating Works Inc — Bridgeport

Chucks
Cushman Chuck Co The — Hartford
Jacobs Manufacturing Co The — West Hartford
Union Manufacturing Company — New Britain

Chucks—Drill
Jacobs Manufacturing Co The — West Hartford

Chucks & Face Plate Jaws
Cushman Chuck Co The — Hartford
Union Mfg Co — New Britain

Chucks—Power Operated
Cushman Chuck Co The — Hartford
Union Manufacturing Company — New Britain

Circuit Breakers
Circuit Protective Devices Dept., General Electric Co. — Plainville

Circulating Pumps
Corley Co Inc The — Plainville

Clay
Howard Company (Fire Howard "B" and High Temperature Dry) — New Haven

Cleaning Compounds
Enthone Inc (Industrial) — New Haven

Cleansing Compounds
MacDermid Incorporated — Waterbury

Clock Mechanisms
Lux Clock Mfg Co The — Waterbury

Clocks
E Ingraham Co The — Bristol
Seth Thomas Clocks — Thomaston
United States Time Corporation The — Waterbury

Clocks—Alarm
Lux Clock Mfg Co The — Waterbury

Clocks—Automatic Cooking
Lux Clock Mfg Co The — Waterbury

Clutches
Snow-Nabstedt Gear Corp The — New Haven

Clutch Facings
Raybestos Division of Raybestos-Manhattan Inc (Molded, Woven, Semi-metallic and Full-metallic) — Bridgeport
Russell Mfg Co The (all types) — Middletown

Coatings
Bischoff Chemical Corporation (Peelable Plastic Coatings) — Ivoryton

Coil Winding Machines
Boesch Mfg Co Inc — Danbury

Coils—Electric
Bittermann Electric Company — Canaan

Coils—Pipe or Tube
National Pipe Bending Co The — 160 River St New Haven
Whitlock Manufacturing Co The — Hartford

Cold Molded Electrical Insulation
Meriden Molded Plastics — Meriden

Commercial Heat Treating
A F Holden Company The — 52 Richard St West Haven

Commercial Truck Bodies
Metropolitan Body Company — Bridgeport

Compacts
Scovill Manufacturing Company (powder and rouge) — Waterbury

Comparators
Pratt & Whitney Co Inc (Electro-limit and Air-O-Limit) — West Hartford

Compressors
Norwalk Company Inc (high pressure air and gas) — South Norwalk

Computers
Newton Co The (electronic) — Manchester
Reflectone Corporation The — Stamford

Concrete Products
Plastricrete Corp — Hamden

Condenser and Heat Exchanger Tubes
Bridgeport Brass Company — Bridgeport
Scovill Manufacturing Company — Waterbury

Cones
Sonoco Products Co (Climax-Lowell Div) (Paper) — Mystic

Consulting Engineers
McNeal J D (Electrical and Electronic) — New Haven
Standish Associates Inc — Fairfield
Stanley P Rockwell Co Inc The (Consulting) 296 Homestead Ave — Hartford

Continuous Mill Gages
Pratt & Whitney Co Inc — West Hartford

Contract Machining
Laurel Mfg Co Inc (Precision Production Small Parts) — Plainville
Malleable Iron Fittings Company — Branford
Charles Parker Co — Meriden

Contract Manufacturers
Fenn Mfg Co The (Precision Machine Work) — Newington
Greist Mfg Co The (metal parts and assemblies) 503 Blake St — New Haven
Merriam Mfg Co (production runs—metal boxes and containers to specifications) — Durham
Charles Parker Co (sheet metal fabricators) — Meriden
Plume & Atwood Mfg Co The (metal parts and assemblies) — Thomaston
Scovill Manufacturing Company (metal parts and assemblies) — Waterbury 91
J H Sessions & Son — Bristol

Controllers
Bristol Company The — Waterbury
Manning Maxwell & Moore Inc — Stratford

Controls—Remote
Panish Controls (Remote Controls for Marine & Aeronautic Applications) — Bridgeport

Controls Remote, Hydraulic
Sperry Products Inc — Danbury

Converters DC to AC
Electric Specialty Co — Stamford

Conveyor Systems
Hayes-Te Equipment Corp Connecticut Conveyor Division (Conn-Veyor) — Unionville
Leeds Conveyor Mfg Co The — East Haven
Production Equipment Co — Meriden

Copper
American Brass Corp The (sheet, wire, rods, tubes) — Waterbury
Bridgeport Brass Company (sheet, rod, wire and tubing) — Bridgeport
Bristol Brass Corp The (steel) — Bristol
Chase Brass & Copper Co (sheet, rod, wire tube) — Waterbury
Thinsheet Metals Co The (sheets and rolls) — Waterbury
Western Brass Mills Div Olin Mathieson Chemical Corp — New Haven

Copper Castings
Knapp Foundry Company Inc — Guilford

Copper Sand Castings
Bridgeport Deoxidized Bronze Corp — Bridgeport

Copper Sheets
American Brass Company The — Waterbury
New Haven Copper Co The — Seymour

Copper Shingles
New Haven Copper Co The — Seymour

Copperware
Bridgeport Brass Company (cooking utensils) — Bridgeport

Copper Water Tube
American Brass Company The — Waterbury
Bridgeport Brass Co — Bridgeport

Cord
Russell Mfg Co The (marine & aero shock) — Middletown

Cords—Asbestos Insulated
General Electric Company — Bridgeport

Cords—Braided
General Electric Company — Bridgeport

Cords—Heater
Essex Mills Inc — Essex
General Electric Company — Bridgeport

Cords—Portable
General Electric Company — Bridgeport

Cord Sets—Electric
General Electric Company — Bridgeport
Seeger-Williams Inc — Bridgeport

Cork Cots
Sonoco Products Co (Climax-Lowell Div) — Mystic

Correspondence Files
Wassell Organization Inc — Westport

Corrugated Box Manufacturers
Connecticut Container Corporation — New Haven
Corrugated Containers Inc — Hartford

Corugated Shipping Cases
Connecticut Container Corporation — New Haven
Continental Can Co., Fibre Drum and Corrugated Box Division — Portland
D L & D Container Corp — 87 Shelton Ave New Haven

Cosmetic Containers
Eyelet Specialty Co The — Waterbury
Plume & Atwood Mfg Co The (metal) — Thomaston
Scovill Manufacturing Company — Waterbury

Cosmetics
J B Williams Co The — Glastonbury

Cotton and Asbestos Wicking
Bland Burner Co The — Hartford

Counting Devices
Veeder-Root Inc — Hartford

Couplings
Scovill Manufacturing Company (hose and tube) — Waterbury

Crushers
Farrel-Birmingham Company Inc (Stone and Ore) — Ansonia

Cups—Paper
Continental Can Co Paper Container Div — Kensington

Cushioning for Packaging
B F Goodrich Sponge Products Division — Shelton
Gilman Brothers Co The — Gilman

Cutters
Atrax Company The (solid carbide) — Newington
Barnes Tool Company The (pipe cutters, hand) — New Haven
Mitrametric Co The (ground pinion) — Torrington
Pratt & Whitney Co Inc (Milling Cutters all types) — West Hartford

Cutting & Creasing Rule
Bartholomew Co H J — Bristol

Decalcomanias
Sirocco Screenprints — New Haven

Deep Hole Drilling & Reaming
Hamden Deep Hole Drilling Co — Hamden
Wilson Arms Co The — Hartford

(Advt.)

Deep Drawings
Stanley Pressed Metal — New Britain

Delayed Action Mechanism
M H Rhodes Inc — Hartford
R W Cramer Company Inc The — Centerbrook

Demineralizers
Crystal Research Laboratories — Hartford

Design
Designers for Business and Industry (appearance-product) — New Haven

Design & Drafting Service
Smith & Winchester Mfg Co The — South Windham

Development Work
Saybrook Manufacturing Inc — Old Saybrook

Diamonds—Industrial
Diamond Tool and Die Works — Hartford

Dictating Machines
Dictaphone Corporation — Bridgeport
Gray Manufacturing Company The — Hartford
SoundScriber Corporation The — New Haven

Die Cast Dies
C & F Tool & Die Corp — Bridgeport

Die Castings
Mt Vernon Die Casting Co — Stamford
Newton-New Haven Co Inc — New Haven

Die Casting Dies
ABA Tool & Die Co — Manchester
Eastern Machine Screw Corp The — Truman & Barclay Sts New Haven
Parker-Hartford Corporation — Hartford
Weimann Bros Mfg Co The — Derby

Die Heads—Self Opening
Eastern Machine Screw Corp The — New Haven
Geometric Tool Division, Greenfield Tap & Die Corp — New Haven

Die Polishing Machinery
Hartford Special Machinery Co The — Hartford

Die Sets
Pratt & Whitney Co Inc (Precision) — West Hartford
Producto Machine Company The — Bridgeport
Union Mfg Co (precision, steel and semi-steel) — New Britain

Die Sinkers
Pratt & Whitney Co Inc — West Hartford

Dies
Allstate Steel Rule Die Mfrs. (steel rule, cutting & blanking) — Waterbury
Hoggson & Pettis Mfg Co The — 141 Brewery St New Haven
Mitrametric Co The (ground for gears) — Torrington
Parker-Hartford Corporation (plastics and die castings) — Hartford
Pratt & Whitney Co Inc (Monocone and Ducone Dies) — West Hartford

Dies & Die Cutting
Allstate Steel Rule Die Mfrs. (cutting, creasing, perforating, steel rule) — Waterbury
Douglas Co Geo M — New Haven
Tsingris Die Cutting Corp. (customers' material or printed matter) — Waterbury

Display Containers
National Folding Box Co Div Federal Paper Board Co Inc (folding paperboard) — New Haven and Versailles

Displays—Design & Production
Ad-Craft Displays, Inc. — Bloomfield
Stifel & Kufta — New Britain

Displays—Metal
Durham Mfg Co The (Designing & Mfg to customers' specifications) — Durham
Merriam Mfg Co (Contract Work to Individual Specifications) — Durham
Parsons Co Inc W A (custom designed)

Distribution Centers
Distribution Assemblies Department, General Electric Co — Plainville

Door Closers
Sargent & Company — New Haven
Yale & Towne Mfg Co The — Stamford

Doors
Bilco Co The (metal, residential and commercial) — West Haven

Dowel Pins
Allen Manufacturing Co The — Hartford
Holo-Krome Screw Corp The — West Hartford

Drafting Accessories
Joseph Merritt & Co — Hartford

Draft Inductors
Corley Co Inc The — Plainville

Drill Presses
Townsend Mfg Co The H P — Elmwood

Drilling Machines
Howe & Fant Inc (Turret Type) — East Norwalk
Pratt & Whitney Co Inc (Deep Hole) — West Hartford

Drilling and Tapping Machinery
Hartford Special Machinery Co The — Hartford

Drop Forgings
Atwater Mfg Co — Plantsville
Billings & Spencer Co The — Hartford
Consolidated Industries — West Cheshire
Wilcox Crittenden & Co Inc — Middletown

Druggists' Rubber Sundries
Seamless Rubber Company The — New Haven

Duplicating Machines—Automatic
Pratt & Whitney Co Inc — West Hartford

Duplicator Tables
Regent Machine Co — Bridgeport

Elastic Narrow Fabric
Essex Mills Inc — Essex

Electric Cables
General Electric Company (for residential, commercial and industrial applications) — Bridgeport
Rockbestos Products Corp (asbestos insulated) — New Haven

Electric—Commutators & Segments
Cameron Elec Mfg Co The (rewinding motors) — Ansonia

Electric Cord Springs
Bristol Spring Manufacturing Co — Plainville

Electric Cords
General Electric Company — Bridgeport
Rockbestos Products Corp (asbestos insulated) — New Haven

Electric Eye Control
Ripley Company Inc — Middletown

Electric Fixture Wire
Rockbestos Products Corp (asbestos insulated) — New Haven

Electric Hand Irons
Winsted Hardware Mfg Co (trade mark "Durabilt") — Winsted

Electric Heating Elements
Hartford Element Co — Hartford

Electric Ignition Harnesses
General Electric Company — Bridgeport

Electric Insulation
Case Brothers Inc — Manchester
Stevens Paper Mills Inc The — Windsor
Tsingris Die Cutting Corp. (die cutting) — Waterbury

Electric Lighting Fixtures
Fan-Craft Mfg Co (residential, church, post lanterns) — Plainville
Plume & Atwood Mfg Co The — Thomaston
Wasley Products Inc — Plainville

Electric Motor Controls
Arrow-Hart & Hegeman Electric Co The — Hartford

Electric Signs
Berger Sign Co — Hartford

Electric Switches
Arrow-Hart & Hegeman Electric Co The — Hartford

Electric Time Controls
Cramer Controls Corporation The — Centerbrook

Electric Underfloor Duct System
General Electric Company — Bridgeport

Electric Wire
General Electric Company — Bridgeport
Rockbestos Products Corp (asbestos insulated) — New Haven

Electric Wiring Devices
Arrow-Hart & Hegeman Electric Co The — Hartford

Electrical Conduit Fittings & Grounding Specialties
Gillette-Vibber Company The — New London

Electrical Connectors
Burndy Engineering Co Inc — Norwalk

Electrical Control Apparatus
Pak-A-Trol Corp. — Milford
Plainville Electrical Products Co The — Plainville

Electrical Goods
A C Gilbert Co — New Haven

Electrical Motors
Electric Specialty Co — Stamford
U S Electrical Motors Inc — Milford

Electrical Recorders
Bristol Co The — Waterbury

Electrical Relays and Controls
Allied Control Co — Plantsville

Electrical Switchboards
Plainville Electrical Products Co The — Plainville
Pneumatic Applications Co — Simsbury

Electrical Test Equipment
McNeal J D — New Haven

Electrical Wiring Systems
Wiremold Co The — Hartford

Electronic Parts
Terryville Manufacturing Co (Stampings to customer specifications) — Terryville

Electronics
Gray Manufacturing Company The — Hartford
McNeal J D — New Haven
Middletown Mfg Co (metal cabinets, chassis panels, brackets, cases) — Middletown
Newton Co The — Manchester
Ripley Co — Middletown
Sturrup Larabee & Warmers Inc — Middletown

Electroplating
City Plating Works Inc — Bridgeport
National Sherardizing & Machine Co — Hartford
Waterbury Plating Company — Waterbury

Electroplating—Equipment & Supplies
Apothecaries Hall Company Division — Waterbury
The Hubbard Hall Chemical Company
Comco Inc Div of Enthone Inc — New Haven
Lea Manufacturing Co The — Waterbury
MacDermid Incorporated — Waterbury

Electroplating Processes & Supplies
Enthone Inc — New Haven
United Chromium Incorporated — Waterbury

Electrotypes
ADS Inc Div CSW Plastic Types Inc — Hartford
Barnum-Hayward Electrotype Co Inc — New Haven
Lockwood Sons Inc Wm H — Hartford
New Haven Electrotype Div Electrographic Corp — New Haven

Elevators
Eastern Elevator Co (passenger and freight) — New Haven
General Elevator Service Co — Hartford

Enameling
Waterbury Plating Company — Waterbury

Enamels & Lacquers
Dobbs Chemical Co The (industrial finishes to customers' specifications) — New Haven

End Milling Cutters
Pratt & Whitney Co Inc — West Hartford

End Mills
Atrax Company The (solid carbide) — Newington

Envelopes
Curtis 1000 Inc — Hartford
United States Envelope Company Hartford Division — Hartford

Envelopes—Stock and Special
Continental Can Co Paper Container Div — Kensington

Environmental Testing
State Testing Laboratory — Bridgeport (Advt.)

Extractors—Tap
Walton Company The West Hartford

Extruders and Accessories
Standard Machinery Co The (for the Wire and Cable Mfrs) Mystic

Eyelets
American Brass Company The Waterbury
Mark Eyelet & Stamping Co (small—metal stampings) Wolcott
Platt Bros & Co The P O Box 1030 Waterbury
Plume & Atwood Mfg Co The Thomaston
Scovill Manufacturing Company Waterbury 91
Stevens Co Inc Waterbury
Waterbury Companies Inc Waterbury

Eyelets, Ferrules and Wiring Terminals
American Brass Company The Waterbury
Waterbury Companies Inc Waterbury

Eyelet Machine Products
American Brass Company The Waterbury
Ball & Socket Mfg Co The West Cheshire
Cold Forming Mfg Co The Waterbury
Plume & Atwood Mfg Co The Thomaston
Stevens Co Inc Waterbury
Waterbury Companies Inc Waterbury

Fabricators
Scovill Manufacturing Company (aluminum, brass, bronze, copper, steel) Waterbury

Fabrics
Russell Mfg Co The (Teflon for high temperature bearings, bakelite impregnated and aero ski surfaces) Middletown

Fan Blades
Torrington Manufacturing Company The Torrington

Fancy Dress Buttons and Buckles
Waterbury Companies Inc Waterbury

Fans—Electric
General Electric Company Bridgeport

Fasteners—Aircraft
Scovill Manufacturing Company (PANELOC Aircraft Fasteners) Waterbury

Fasteners—Laundry Proof
Scovill Manufacturing Company (GRIPPER snap fasteners) Waterbury

Fasteners—Slide & Snap
G E Prentice Mfg Co The Kensington
Scovill Manufacturing Company (GRIPPER zippers and GRIPPER snap fasteners) Waterbury

Felt
Auburn Manufacturing Company The (mechanical, cut parts) Middletown
Dycor Felt Company (paper makers and industrial) Staffordville
Tsingris Die Cutting Corp. (die cutting) Waterbury

Felt—All Purpose
American Felt Co (Mill & Cutting Plant) Glenville
Chas W House & Sons Inc (Mills & Cutting Plant) Unionville
Tsingris Die Cutting Corp. (die cutting) Waterbury

Fenders—Boat
B F Goodrich Sponge Products Division Shelton

Fiber-glass Fabrication
Davis Co The E J West Haven
Tsingris Die Cutting Corp. (mat. sales, die cutting) Waterbury

Fibre Board
Bird & Son Inc New Britain
Case Brothers Inc Manchester
Colonial Board Company Manchester
C H Horton Co The North Westchester
Stevens Paper Mills Inc The Windsor

File Cards
Standard Card Clothing Co The Stafford Springs

Filing Equipment
Wassell Organization Inc Westport

Films
Cine-Video Productions Inc Milford

Filters—Liquid
Alsop Engineering Corporation Milldale

Finger Nail Clippers
H C Cook Co The 32 Beaver St Ansonia

Firearms
Colt's Patent Fire Arms Mfg Co Inc Hartford
Junior Screw Machine Products Inc West Haven
Marlin Firearms Co The New Haven
O F Mosberg & Sons Inc New Haven
Arms and Ammunition Div Olin Mathieson Chemical Corp New Haven

Fire Alarm Systems
Fire-Lite Alarms Inc New Haven

Fire Hose
Fabrics Fire Hose (municipal and industrial) Sandy Hook

Fireplace Goods
American Windshield & Specialty Co The 881 Boston Post Road Milford
John P Smith Co The (screens) 423-33 Chapel St New Haven

Fireworks
M Backes' Sons Inc Wallingford

Fishing Tackle
H C Cook The 32 Beaver St Ansonia

Flashlights
Bridgeport Metal Goods Mfg Co Bridgeport
Electrical Div Olin Mathieson Chemical Corp New Haven

Flat Springs
Bristol Spring Manufacturing Co Plainville
Gemco Manufacturing Co Inc Southington

Flexible Shaft Machines
Pratt & Whitney Co Inc West Hartford

Floor & Ceiling Plates
Beaton & Cadwell Mfg Co The New Britain

Fluorescent Lighting Equipment
Fullerton Manufacturing Corp Norwalk
Vanderman Manufacturing Co The Willimantic
Wiremold Company The Hartford

Foam Rubber
Armstrong Rubber Company The West Haven
B F Goodrich Sponge Products Division Shelton

Forgings
Atwater Manufacturing Company Plantsville
Billings & Spencer Company Hartford
Capewell Manufacturing Company Hartford
Clark Brothers Bolt Co Milldale
Consolidated Industries Inc West Cheshire
Heppenstall Co (all kinds and shapes) Bridgeport
Scovill Manufacturing Company (Non-ferrous) Waterbury 91

Foundries
Connecticut Malleable Castings Co (malleable iron castings) New Haven
Derby Castings Company, The Seymour
Ductile Iron Foundry Inc Stratford
Farrel-Birmingham Company Inc (Iron and Steel) Ansonia
Hartford Electric Steel Corp The Hartford
Charles Parker Company The (brass, bronze, aluminum) Meriden
Plainville Casting Company (gray, alloy and high tensile irons) Plainville
Producto Machine Company The Bridgeport
Smith & Winchester Mfg Co The South Windham
Turner & Seymour Mfg Co The (gray, iron, semi steel and alloy) Torrington
Union Mfg Co (gray iron & semi steel) New Britain
Wilcox Crittenden & Co Inc (iron, brass, aluminum and bronze) Middletown

Fountain Pens and Mechanical Pencils
Waterman Pen Company Inc Seymour

Foundry Riddles
John P Smith Co The 423-33 Chapel St New Haven

Four Slide Forms
Peck Spring Co Plainville

Frames—Hack Saw
Thompson & Son Co The Henry G New Haven

Fuel Oil Pump and Heater Sets
Peabody Engineering Corporation Stamford

Gage Blocks
Pratt & Whitney Co Inc (Alloy steel and Carbide, Hoke and USA) West Hartford

Galvanizing
Malleable Iron Fittings Co Branford
Wilcox Crittenden & Co Inc Middletown

Gaskets
Auburn Manufacturing Company The (from all materials) Middletown
Raybestos Division of Raybestos-Manhattan Inc Bridgeport
Tsingris Die Cutting Corp (from all materials) Waterbury

Gaskets—Insulation
American Felt Co Glenville
Tsingris Die Cutting Corp. (thermal, acoustical, die cutting) Waterbury

Gas Range Conversion Burner
Holyoke Heater Corp of Conn Inc Hartford

Gas Scrubbers, Coolers and Absorbers
Peabody Engineering Corporation Stamford

Gauges
Bristol Co The (pressure and vacuum-recording automatic control) Waterbury
Helicoid Gage Division American Chain & Cable Co The (pressure and vacuum) Bridgeport
Manning Maxwell & Moore Inc Stratford
Pratt & Whitney Co Inc (Precision Measurement all types) West Hartford

Gears
Mitrametric Co The (blanked fine pitch) Torrington

Gears and Gear Cutting
Farrel-Birmingham Company Inc Ansonia
Fenn Mfg Co The Newington
Hartford Special Machinery Co The Hartford
United Gear & Machine Co Suffield

Glass Blowing
Arnco Sign Co (scientific apparatus) Meriden
Macalaster Bicknell Company New Haven

Glass Cutters
Fletcher-Terry Co The Forestville

Gold & Silver Plating
Donham Craft Inc (on metals & plastics) Thomaston

Golf Equipment
Horton Mfg Co The (clubs, shafts, balls, bags) Bristol

Greeting Cards
A D Steinbach & Sons Inc New Haven

Grinding
Farrel-Birmingham Company Inc (Roll and Cylindrical) Ansonia
Hartford Special Machinery Co The (gears, threads, cams and splines) Hartford
Horberg Grinding Industries Inc (Precision custom grinding; centerless, cylindrical, surfaces, internal and special) 19 Staples St Bridgeport

Grinding Heads—Internal
Pratt & Whitney Co Inc (Pneumatic, High Speed) West Hartford

Grinding Machines
Farrel-Birmingham Company Inc (Roll) Ansonia
Pratt & Whitney Co Inc (Surface; Die, Gear and Cutter Grinders) West Hartford
Rowbottom Machine Company Inc (cam) Waterbury

Grommets
American Brass Company The Waterbury
Plume & Atwood Mfg Co The Waterbury

Ground Rubber Rolls
Saybrook Manufacturing Inc Old Saybrook

Guards for Machinery
Wheeler Co The G E New Haven

Hack and Band Saw Blades
Capewell Manufacturing Co The Hartford

Hair Hygiene Preparations
Parker Herbex Corporation Stamford

Hammers—Carpenters and Machinists
Capewell Manufacturing Company Hartford

Hand Tools
Billings and Spencer Company (wrenches sockets and shop tools) Hartford
Bridgeport Hdwe Mfg. Corp The (nail pullers, scout axes, box opening tools, towels, coping saws, putty knives) Bridgeport

Hardness Testers
Wilson Mechanical Instrument Div American Chain & Cable Company Inc Bridgeport

Hardware
Bassick Company The (Automotive) Bridgeport
City Lumber Co of Bridgeport Inc Bridgeport
Gordon Associates Derby
Harlock Products Corp New Haven
Sargent & Company New Haven
Wilcox Crittenden & Co Inc (marine heavy and industrial) Middletown
Yale & Towne Mfg Co The Stamford

Hardware—Marine & Bus
Rostand Mfg Co The Milford

Hardware—Trailer Cabinet
Excelsior Hardware Co The Stamford

Hardware, Trunk & Luggage
Corbin Cabinet Lock Div American Hardware Corp New Britain
J H Sessions & Son Bristol
Yale & Towne Mfg Co The Stamford

Hat Machinery
Doran Bros Inc Danbury

Health Surgical & Orthopedic Supports
Berger Brothers Company The (custom made for back, breast and abdomen) New Haven

Heat Elements
Electroflex Heat Inc Hartford
Safeway Heat Elements Inc (woven wire resistance type) Middletown

Heat Exchangers
Whitlock Manufacturing Co The Hartford

Heat Treating
Bennett Metal Treating Co The 1045 New Britain Ave Elmwood
Commercial Metal Treating Co Bridgeport
New Britain-Gridley Machine Division The New Britain Machine Co New Britain
New Haven Heat Treating Co., Inc. New Haven
Skene Co Inc The William A (metals) Bridgeport
Stanley P Rockwell Co Inc The 296 Homestead Ave Hartford

(Advt.)

Heat-Treating Equipment
Barnes Co The Wallace Div Associated Spring Corp Bristol
Bauer & Company Inc Hartford
Rolock Inc (Retorts, Muffles, etc.) Fairfield
Stanley P Rockwell Co Inc The (commercial) 296 Homestead Ave Hartford

Heat Treating Fixtures
Rolock Inc (Trays, Baskets, etc.) Fairfield
Wiretex Mfg Co Inc Bridgeport

Heat Treating Salts and Compounds
Mitchell-Bradford Chemical Co Bridgeport

Heaters—Electric
General Electric Company Bridgeport

Heating and Cooling Coils
G & O Manufacturing Co New Haven

Heating Elements
Hartford Element Co Hartford

Heavy Chemicals
Naugatuck Chemical Division United States Rubber Co (sulphuric, nitric and muriatic acids and aniline oil)

Heavy Machinery
Smith & Winchester Mfg Co The South Windham

Hex-Socket Screws
Bristol Company The Waterbury
Holo-Krome Screw Corp The West Hartford

High Frequency Alternators
Electric Specialty Co Stamford

Highway Guard Rail Hardware
Malleable Iron Fittings Co Branford

Hinges
Homer D Bronson Company Beacon Falls

Hobs and Hobbings
ABA Tool & Die Co Manchester
Parker-Hartford Corporation Hartford
Pratt & Whitney Co Inc (Die and Thread milling) West Hartford

Hoists and Trolleys
Union Mfg Company New Britain

Hose Fittings
Don Mfg Co J M Naugatuck
Scovill Manufacturing Company Waterbury

Hose—Flexible Metallic
American Brass Co
American Metal Hose Branch Waterbury

Hose Supporter Trimmings
Hawle Mfg Co The (So-Lo Grip Tabs) Bridgeport

Hydraulic Brake Fluids
Eis Manufacturing Co Middletown

Hypodermic Needles
Roehr Products Company Waterbury

Ice Buckets
B F Goodrich Sponge Products Division Shelton

Impregnating
American Metaseal Inc (metal, wood, etc.) Hamden

Industrial Chrome Plating
Mirror Polishing & Buffing Co Waterbury

Industrial Displays
Sansone Co S Frederick (Designers Builders and Counselors) Short Beach

Industrial Finishes
Chemical Coatings Corporation Rocky Hill
United Chromium Incorporated Waterbury

Inhalators
Cycle-Flo Company The Milford

Inks
Waterman Pen Company Inc Seymour

Insecticides
American Cyanamid Company Waterbury

Instalment Payment Books
Wassell Organization Inc Westport

Insulated Wire & Cable
General Electric Company (for residential commercial and industrial applications) Bridgeport
Kerite Company The Seymour

Insulated Wire & Cable Machinery
Davis Electric Company Wallingford

Instruments
Bristol Company The Waterbury
J-B-T Instruments Inc (Electrical and Temperature) New Haven
Manning Maxwell & Moore Inc Stratford
Pratt & Whitney Co Inc (Precision Measuring) West Hartford

Integrators
Reflectone Corporation The Stamford

Interval Timers
Lux Clock Manufacturing Company Waterbury
Rhodes Inc M H Hartford

Jacquard
Case Brothers Inc Manchester

Japanning
J H Sessions & Son Bristol

Jig Borer
Moore Special Tool Co (Moore) Bridgeport
Pratt & Whitney Co Inc West Hartford

Jigs, Fixtures & Gages
Federal Machine & Tool Co Bristol

Jig Grinder
Moore Special Tool Co (Moore) Bridgeport

Keller Machines
Pratt & Whitney Co Inc West Hartford

Key Blanks
Sargent & Company New Haven
Yale & Towne Mfg Co The Stamford

Labels
J & J Cash Inc (Woven) South Norwalk
Naugatuck Chemical Division United States Rubber Co (for rubber articles) Naugatuck

Label Moisteners
Better Packages Inc Shelton

Laboratory Equipment
Eastern Industries Inc New Haven

Laboratory Supplies
Macalaster Bicknell Company New Haven

Laces
American Fabrics Company The Bridgeport
Wilcox Lace Corporation Middletown

Laces and Nettings
Wilcox Lace Corporation The Middletown

Lacquers & Synthetic Enamels
Chemical Coatings Corporation Rocky Hill
I-Sis Chemicals Inc Stamford
United Chromium Incorporated Waterbury

Ladders
A W Flint Co 196 Chapel St New Haven

Laminated Metal
Bridgeport Brass Company Bridgeport

Lamps
Plume & Atwood Mfg Co The (metal oil) Waterbury

Lampholders—Incandescent and Flourescent
General Electric Company Bridgeport

Lamp Shades
Verplex Company The Essex

Lanterns—Battery Operated
Electrical Div Olin Mathieson Chemical Corp New Haven

Lathes—Contin-U-Matic
Bullard Company The (vertical multi-spindle-continuous turning type) Bridgeport

Lathes—Man-Au-Trol
Bullard Company The Bridgeport

Lathes—Mult-Au-Matic
Bullard Company The (vertical multi-spindle-indexing type) Bridgeport

Lathes—Toolroom and Automatic
Pratt & Whitney Co Inc West Hartford

Lathes—Vertical Turret
Bullard Company The (single spindle) Bridgeport

Lead Plating
Christie Plating Co The Groton

Leather
Norwich Leather Co Norwich
Herman Roser & Sons Inc (Genuine Pigskin) Glastonbury

Leather Dog Furnishings
Andrew B Hendryx Co The New Haven
The Smith-Worthington Saddlery Co Hartford

Leather Goods Trimmings
G E Prentice Mfg Co The Kensington

Leather, Mechanical
Auburn Manufacturing Company The (packings, cubs, washers, etc) Middletown

Letterheads
Lehman Brothers Inc (designers, engravers, lithographers) New Haven

Levels—Machinist's Precision
Bullard Company The Bridgeport

Light Assemblies
Saybrook Manufacturing Inc Old Saybrook

Lighting Accessories—Flourescent
General Electric Company Bridgeport

Lighting Equipment
Fullerton Manufacturing Corp Norwalk
Miller Co The (Miller, Duplexalite, Ivanhoe) Meriden

Lines—Braided
Essex Mills Inc Essex

Lime
New England Lime Company Canaan

Lipstick Cases
Scovill Manufacturing Company Waterbury

Lipstick Containers
Bridgeport Metal Goods Mfg Co Bridgeport
Plume & Atwood Manufacturing Co Waterbury

Lithographers
O'Toole & Sons Inc T Stamford

Lithographing
Kellogg & Bulkeley A Division of Connecticut Printers Inc Hartford
Lehman Brothers Inc New Haven
A D Steinbach & Sons New Haven

Locks—Banks
Yale & Towne Mfg Co The Stamford

Locks—Builders
Sargent & Company New Haven
Yale & Towne Mfg Co The Stamford

Locks—Cabinet
Excelsior Hardware Co The Stamford
Yale & Towne Mfg Co The Stamford

Locks—Special Purpose
Yale & Towne Mfg Co The Stamford

Locks—Suitcase and Trimmings
Excelsior Hardware Co The Stamford

Locks—Trunk
Excelsior Hardware Co The Stamford
Yale & Towne Mfg Co The Stamford

Locks—Zipper
Excelsior Hardware Co The Stamford

Loom—Non-Metallic
Wiremold Company The Hartford

Lubricants—High Pressure
Alpha Molykote Corp The Stamford

Lubricants—Extreme Temperatures
Alpha Molykote Corp The Stamford

Lubricating System—Mist
Thompson & Son Co The Henry G New Haven

Lumber & Millwork Products
City Lumber Co of Bridgeport Inc Bridgeport

Machetes
Collins Company The Collinsville

Machine Design
Black Rock Mfg Company The Bridgeport
Standish Associates Inc Fairfield

Machine Shop Fabrication
Smith & Winchester Mfg Co The South Windham (Advt.)

Machine Tool Designers
R & S Company — New Britain

Machine Tools
Bullard Company The — Bridgeport
Farrel-Birmingham Company Inc — Ansonia
Pratt & Whitney Co Inc — West Hartford
Producto Machine Company The — Bridgeport

Machine Tools
Victor Machine Tool Rebuilders Inc (scraping, fitting & aligning) — Bridgeport

Machine Work
Banthin Engineering Co — Bridgeport
Black Rock Mfg Company The — Bridgeport
Farrel-Birmingham Company Inc — Ansonia
Fenn Manufacturing Company The (precision parts) — Newington
Hartford Special Machinery Co The (contract work only) — Hartford
Joma Tool Co (small assemblies & parts) — Wolcott
National Sheradizing & Machine Co (job) — Hartford
Parker-Hartford Corporation — Hartford
Swan Tool & Machine Co The — Hartford
Torrington Manufacturing Co The (special rolling mill machinery) — Torrington

Machinery
Fenn Manufacturing Company The (special) — Newington
Hallden Machine Company The (mill) — Thomaston
Torrington Manufacturing Co The (mill) — Torrington

Machinery—Automatic
Banthin Engineering Company (new and rebuilt) — Bridgeport

Machinery—Bolt and Nut
Waterbury Farrel Foundry & Machine Co The — Waterbury

Machinery—Cold Heading
Waterbury Farrel Foundry & Machine Co The — Waterbury

Machinery Dealers & Rebuilders
Botwinik Brothers — New Haven
J L Lucas and Son — Fairfield
State Machinery Co Inc — New Haven

Machinery—Extruding
Standard Machinery Co The — Mystic

Machinery—Metal-Working
Fenn Mfg Co The — Newington
Waterbury Farrel Foundry & Machine Co The — Waterbury
Pratt & Whitney Co Inc — West Hartford

Machinery—Nut
Waterbury Farrel Foundry & Machine Co The (forming and tapping) — Waterbury

Machinery—Screw and Rivet
Waterbury Farrel Foundry & Machine Co The — Waterbury

Machinery—Wire Drawing
Fenn Mfg Co The — Newington
Waterbury Farrel Foundry & Machine Co The — Waterbury

Machinery—Wire Straightening
Mettler Machine Tool Inc — New Haven

Machinery—Wire Straightening and Cutting
Mettler Machine Tool, Inc. — New Haven

Machines
Campbell Machine Div American Chain & Cable Co Inc (cutting & nibbling) — Bridgeport
Coulter & McKenzie Machine Co The (special, new development engineering design and construction) — Bridgeport
Patent Button Company The — Waterbury

Machines Automatic
Globe Tapping Machine Co — Bridgeport
A H Nilson Mach Co The (Special) — Bridgeport
Standish Associates Inc — Fairfield

Machines—Automatic Chucking
Bullard Company The — Bridgeport
New Britain-Gridley Machine Division The New Britain Machine Co (multiple spindle and double end) — New Britain
Pratt & Whitney Co Inc (Potter & Johnson) — West Hartford

Machines—Brushing
Fuller Brush Co The — Hartford

Machines—Contin-U-Matic
Bullard Company The (verticle multi-spindle—continuous turning) — Bridgeport

Machines—Draw Benches
Fenn Manufacturing Company The — Newington

Machines—Forming
A H Nilson Mach Co The (four-slide wire and ribbon stock) — Bridgeport

Machines—Paper Ruling
John McAdams & Sons Inc — Norwalk

Machines—Precision Boring
New Britain-Gridley Machine Division The New Britain Machine Co — New Britain

Machines—Rolling
Fenn Manufacturing Company The — Newington

Machines—Slotting
Waterbury Farrel Foundry & Machine Co The (screw head) — Waterbury

Machines—Spacing Table
Bullard Company The — Bridgeport

Machines—Special
Fenn Mfg Co The — Newington
Fuller Brush Co The — Hartford

Machines—Swaging
Fenn Manufacturing Company The — Newington

Machines—Thread Rolling
Hartford Special Machinery Co The — Hartford
Peterson Division, Mettler Machine Tool, Inc. — New Haven
Waterbury Farrel Foundry & Machine Co The — Waterbury

Machines—Turks Head
Fenn Manufacturing Company The — Newington

Machines—Wire Drawing
Fenn Manufacturing Company The — Newington

Machining—Horizontal Boring
Tucker Machine Co — North Haven

Manganese Bronze Ingot
Whipple and Choate Company — Bridgeport

Manicure Instruments
W E Bassett Company The — Derby

Marine Engines
Kilborn-Sauer Company (running lights and searchlights) — Fairfield

Marine Equipment
Wilcox-Crittenden Div North & Judd Mfg Co — Middletown

Marine Reserve Gears
Snow-Nabstedt Gear Corp The — New Haven

Marking Devices
Hoggson & Pettis Mfg Co The — New Haven
Parker-Hartford Corporation (steel) — Hartford

Marking Tools
Parker-Hartford Corporation — Hartford

Materials Handling
Hayes-Te Equipment Corp Connecticut Conveyor Division (Conn-Veyor) — Unionville
Parsons Co Inc W A (tote pans) — Durham

Mats—Newspaper
ADS Inc Div CSW Plastic Types Inc — Hartford
Lockwood Sons Inc Wm H — Hartford

Mattresses
Waterbury Mattress Co — Waterbury

Metal Boxes
Parsons Co Inc W A (tool kits) — Durham

Metal Boxes and Displays
Durham Mfg Co The (Designing & Mfg to customers' specifications) — Durham
Merriam Mfg Co (Bond, Security, Cash, Utility, Personal Files, Drawer Safes, Custombilt containers and displays) — Durham
Middletown Mfg Co — Middletown
Charles Parker Co (sheet metal fabricators) — Meriden

Metal Cleaners
Apothecaries Hall Company Division The Hubbard Hall Chemical Company — Waterbury
Enthone Inc — New Haven
MacDermid Incorporated — Waterbury

Metal Finishes
Enthone Inc — New Haven
Mitchell-Bradford Chemical Co — Bridgeport
United Chromium Incorporated — Waterbury

Metal Finishing
Hartford Industrial Finishing Co — Hartford
National Sheradizing & Machine Co — Hartford
Waterbury Plating Company — Waterbury

Metal Formings
Master Engineering Company — West Cheshire
Stanley Pressed Metal — New Britain

Metal Mouldings
Leed Co The H A — Hamden

Metal Novelties
H C Cook Co The — 32 Beaver St Ansonia

Metal Plating—Gold & Silver
Donham Craft Inc — Thomaston

Metal Products—Stampings
American Brass Company The — Waterbury
Plume & Atwood Manufacturing Co — Thomaston
J H Sessions & Son — Bristol
Scovill Manufacturing Company (Made-to-Order) — Waterbury 91
Stanley Pressed Metal — New Britain

Metal Specialties
Excelsior Hardware Co The — Stamford

Metal Spinning
Moseley Metal Crafts Inc — West Hartford

Metal Stampings
American Brass Company The — Waterbury
Better Formed Metals Inc — Waterbury
DooVal Tool & Mfg Inc The — Naugatuck
Excelsior Hardware Co The — Stamford
Greist Mfg Co The — 503 Blake St New Haven
H C Cook Co The — 32 Beaver St Ansonia
Humason Mfg Co The — Forestville
Joma Tool Co — Wolcott
Mohawk Mfg Co (threaded) — Middletown
J. A Otterbein Company The (metal fabrications) — Middletown
J H Sessions & Son — Bristol
Patent Button Co The — Waterbury
G E Prentice Mfg Co The — Kensington
Plume & Atwood Mfg Co The — Thomaston
Saling Manufacturing Company — Unionville
Stanley Pressed Metal — New Britain
Swan Tool & Machine Co The — Hartford
Terryville Manufacturing Co — Terryville
Verplex Company The (Contract) — Essex
Waterbury Lock & Specialty Co The — Milford

Meters—Gas
Sprague Meter Company — Bridgeport

Meters—Parking
Rhodes Inc M H — Hartford

Microfilming
American Microfilming Service Co. — New Haven

Micro-Projectors
Kalart Co Inc The — Plainville

Milk Bottle Carriers
John P Smith Co The — 423-33 Chapel St New Haven

Mill Machinery
Torrington Manufacturing Company The — Torrington

Milling Machines
Pratt & Whitney Co Inc (Keller Tracer—Controlled Milling Machines) — West Hartford
Rowbottom Machine Company Inc (cam) — Waterbury

Mill Products
Scovill Manufacturing Company (aluminum, brass, bronze, nickel silver—sheet, rod, wire, tube) — Waterbury

Mill Supplies
Wilcox-Crittenden Div North & Judd Mfg Co — Middletown

Millwork
Hartford Builders Finish Co — Hartford

Miniature Precision Connectors
Gorn Electric Co — Stamford

Minute Minders
Lux Clock Mfg Co The — Waterbury

Mirror Rosettes and Hangers
Waterbury Companies Inc — Waterbury

Mixers—Liquid
Alsop Engineering Corporation — Milldale

Mixing Equipment
Eastern Industries Inc — New Haven
Gabb Special Products Inc — Windsor Locks

Model Work
B & N Tool & Engineering Co (instruments and timing devices) — Oakville

Mops
Fuller Brush Co The — Hartford
(Advt.)

Motion Picture Equipment
Kalart Co Inc The (16mm Sound and Silent Projectors, Film Splicers & Rewinders) Plainville

Motor Control Centers
Distribution Assemblies Department, General Electric Co Plainville

Motor—Generator Sets
Electric Specialty Co Stamford

Motor Overload Protectors
Sperry Products Inc Danbury

Motors—Electric Timing
Cramer Controls Corporation The Centerbrook

Motors—Synchronous
Cramer Controls Corporation The Centerbrook
Electric Specialty Co Stamford

Moulded Plastic Products
Butterfield Inc T F Naugatuck
Patent Button Co The Waterbury
Waterbury Companies Inc Waterbury
Watertown Mfg Co The 117 Echo Lake Road Watertown

Mouldings
Himmel Brothers Co The (architectural, metal and store front) Hamden

Moulds
ABA Tool & Die Co Manchester
Hoggson & Pettis Mfg Co The (steel) 114 Brewery St New Haven

Name Plates
Seton Name Plate Co (metal & plastic name plates and identification tags) New Haven

Napper Clothing
Standard Card Clothing Co The (for textile mills) Stafford Springs

Nettings
Wilcox Lace Corp The Middletown

Newspaper Mats
Lockwood Sons Inc Wm H Hartford

Nickel Anodes
Apothecaries Hall Company Division The Hubbard Hall Chemical Company Waterbury

Nickel Silver
American Brass Company The Waterbury
Bridgeport Brass Company Bridgeport
Plume & Atwood Mfg Co The Thomaston
Seymour Mfg Co The Seymour
Waterbury Rolling Mills Inc (sheets, strips, rolls) Waterbury
Western Brass Mills Div Olin Mathieson Chemical Corp (sheet, strip) New Haven

Nickel Silver Ingot
Whipple and Choate Company The Bridgeport

Night Latches
Sargent & Company New Haven
Yale & Towne Mfg Co Inc Stamford

Non-ferrous Metal Castings
Miller Company The Meriden
Charles Parker Co Meriden

Nuts, Bolts and Washers
Clark Brothers Bolt Co Millidale

Office Equipment
Pitney-Bowes Inc Stamford
Underwood Corporation Bridgeport & Hartford
Wassell Organization Inc Westport

Offset Printing
Kellogg & Bulkeley A Division of Connecticut Printers Inc Hartford

Oil Burners
Miller Company The (domestic) Meriden
Peabody Engineering Corp (Mechanical and/or Steam Atomizer) Stamford
Silent Glow Oil Burner Corp The 1477 Park St Hartford

Oil Tanks
Norwalk Tank Co The (550 to 30M gals, underwriters above and under ground) South Norwalk
Whitlock Manufacturing Co The Hartford

Oils—Cutting
Anderson Oil Co Inc F E Portland

Open Knife Switches and Accessories
Circuit Protective Devices Dept., General Electric Co. Plainville

Optical Cores & Ingots
Plume & Atwood Mfg Co The Thomaston

Otis Woven Awning Stripes
The Falls Company Norwich

Ovens—Electric
Bauer & Company Inc Hartford

Package Sealers
Better Packages Inc Shelton

Packaging & Packing
Mercer & Stewart Co The Hartford

Packing
Auburn Manufacturing Company The (leather, rubber, asbestos, fibre) Middletown
Raybestos Division of Raybestos-Manhattan Inc (Asbestos and Rubber Sheet) Bridgeport
Tsingris Die Cutting Corp. (from all materials) Waterbury

Padlocks
Sargent & Company New Haven
Waterbury Lock & Specialty Co The Milford
Yale & Towne Mfg Co Inc Stamford

Pads—Office
The Baker Goodyear Company Branford

Paging Loudspeaker Systems
Thomsen's Audio Co Stamford

Paints
Tredennick Paint Manufacturing Co The Meriden

Paints and Enamels
Staminate Corp The New Haven

Panelboards—Lighting and Distribution
Distribution Assemblies Department, General Electric Co Plainville

Panelyte
Leed Co The H A Hamden

Panta
Moore Special Tool Co (crush wheel dresser) Bridgeport

Paperboard
Continental Can Co., Boxboard and Folding Carton Division Montville
Federal Paper Board Co Inc Montville, New Haven & Versailles
Robertson Paper Box Co Montville
New Haven Pulp and Board Co The New Haven

Paper Box—Partitions
American Rondo Corporation (specialty partitions) Hamden

Paper Boxes
Atlantic Carton Corp (folding) Norwich
National Folding Box Co Div Federal Paper Board Co Inc (folding) New Haven & Versaille
New Haven Board and Carton Co The New Haven
Mills Inc H J Bristol
Robertson Paper Box Co (folding) Montville

Paper Boxes—Folding and Setup
Bridgeport Paper Box Company Bridgeport
M Backers' Sons Inc Wallingford

Paper Clips
H C Cook Co The (steel) 32 Beaver St Ansonia

Paper Mill Machinery
Farrel-Birmingham Company Inc Ansonia

Paper Tubes and Cores
Sonoco Products Co (Climax-Lowell) Div Mystic

Parachute Cord
Essex Mills Inc Essex

Parallel Tubes
Sonoco Products Co (Climax-Lowell) Div Mystic

Parking Meters
Rhodes Inc M H Hartford

Parts
Scovill Manufacturing Company (ammunition, electric instrument, electrical appliance, fountain pen, instrument, lighting fixture, ordance, etc.—blanked, stamped, formed, drawn, re-drawn, forged, screw machined, headed, pointed, finished) Waterbury

Pattern-Makers
Farrel-Birmingham Company Inc Ansonia

Pattern Shop
Smith & Winchester Mfg Co The South Windham

Penlights
Bridgeport Metal Goods Mfg Co Bridgeport

Pet Furnishings
Andrew B Hendrix Co The New Haven

Phosphor Bronze
American Brass Company The Waterbury
Bridgeport Brass Company Bridgeport
Miller Company The (sheets, strips, rolls) Meriden
Seymour Mfg Co The Seymour
Waterbury Rolling Mills Inc (sheets, strips, rolls) Waterbury
Western Brass Mills Div Olin Mathieson Chemical Corp (sheets, strip) New Haven

Phosphor Bronze Ingots
Whipple and Choate Company The Bridgeport

Photo Engraving
Dowd Wyllie & Olson Inc Hartford
Wilcox Photo Engraving Co Inc New Haven

Photoflash Batteries
Electrical Div Olin Mathieson Chemical Corp New Haven

Photographic Equipment
Electrical Div Olin Mathieson Chemical Corp New Haven
Kalart Company Inc Plainville

Piano Repairs
Pratt Read & Co Inc (keys and action) Ivoryton

Piano Supplies
Pratt Read & Co (keys and actions, backs, plates) Ivoryton

Pins
CEM Company ("Spirol") Danielson

Pin Up Lamps
Verplex Company The Essex

Pipe
American Brass Co The (brass and copper) Waterbury
Bridgeport Brass Co (brass and copper) Bridgeport
Chase Brass & Copper Co (red brass and copper) Waterbury
Howard Co (cement well and chimney) New Haven

Pipe Fitters Hand Tools
Capewell Manufacturing Company Hartford

Pipe Fittings
Corley Co Inc Plainville
Malleable Iron Fittings Co Branford

Pipe Plugs
Holo-Krome Screw Corporation The (countersunk) West Hartford

Pipe Plugs—Socketed
Holo-Krome Screw Corp The West Hartford

Pistols & Revolvers
Colt's Patent Fire Arms Mfg Co Inc Hartford

Plastic Coatings
Bischoff Chemical Corporation (Peelable Plastic Coatings) Ivoryton

Plastic Bottles
Plax Corporation Bloomfield

Plastic Buttons
Frank Parizek Manufacturing Co The West Willington
Patent Button Co The Waterbury

Plastic Extruders
Jessall Plastics, Inc. Kensington

Plastic Extruders
Jessall Plastics Inc Kensington

Plastic Fabrication
Humphrey Fabricating Corporation Unionville

Plastic Film & Sheet Materials
Gilman Brothers Co The Gilman
Plax Corporation Bloomfield

Plastic Lining Equipment
Comco Inc Div of Enthone Inc New Haven

Plastic Molders
Plastic Molding Corporation Sandy Hook

Plastic Molding
Butterfield Inc T F Naugatuck
U S Plastic Molding Corporation Wallingford

Plastic—Moulders
Conn Plastics Waterbury
Waterbury Companies Inc Waterbury
Watertown Mfg Co The Watertown

Plastic Pipe and Fittings
Comco Inc Div of Enthone Inc New Haven

Plastic Printing Plates
ADS Inc Div CSW Plastic Types Inc Hartford
Lockwood Sons Inc Wm H Hartford

Plastic Wire Coating Materials
Electronic Rubber Co Stamford

Plastics
B F Goodrich Sponge Products Division Shelton
Naugatuck Chemical Division United States Rubber Co Naugatuck
(Advt.)

IT'S MADE IN CONNECTICUT

Plastics Machinery
Black Rock Mfg Company The — Bridgeport
Farrel-Birmingham Company Inc — Ansonia

Plastics Plated—Gold & Silver
Donham Craft Inc — Thomaston

Plastics—Moulds & Dies
Crown Tool & Die Co Inc — Bridgeport
Parker-Hartford Corporation (for plastics) — Hartford

Plasticrete Bloc
Plasticrete Corp — Hamden

Platers
Acme Chromium Plating Co — New Haven
Christie Plating Co — Groton
City Plating Works — Bridgeport
Patent Button Co The — Waterbury
Water Plating Company — Waterbury
Chromium Process Company The (Chromium Plating only) — Shelton

Platers' Equipment
Apothecaries Hall Company — Waterbury
Comco Inc Div of Enthone Inc — New Haven
Lea Manufacturing Co The — Waterbury
MacDermid Incorporated — Waterbury

Platers Metal
Plume & Atwood Mfg Co The — Thomaston

Plating
Christie Plating Co The (including lead plating) — Groton
City Plating Works Inc — Bridgeport
Superior Plating Co — Bridgeport

Plating on Metals & Plastics
Donham Craft Inc — Thomaston

Plating Processes and Supplies
Enthone Inc — New Haven
United Chromium Incorporated — Waterbury

Plumbers' Brass Goods
Bridgeport Brass Co — Bridgeport
Keeney Mfg Co The (special bends) — Newington
McGuire Mfg. Co. — Waterbury
Scovill Manufacturing Company — Waterbury 48

Plumbing Specialties
Risdon Manufacturing Co John M — Russell Div Naugatuck

Pole Line Hardware
Malleable Iron Fittings Co — Branford

Police Equipment
The Smith-Worthington Saddlery Co — Hartford

Polishing
Mirror Polishing & Buffing Co — Waterbury

Poly Chokes
Poly Choke Company The (a shotgun choking device) — Tarriffville

Postage Meters
Pitney Bowes Inc — Stamford

Potentiometers—Electronic
Bristol Company The — Waterbury

Precision Electronic Chassis
Saybrook Manufacturing Inc — Old Saybrook

Precision Machine Tool Spindles
Whitnon Manufacturing Co (for milling, grinding, boring & drilling) — Farmington

Precision Manufacturing
Newton Co The (aircraft parts) — Manchester

Precision Revolving Machinery
Whitnon Manufacturing Co — Farmington

Precision Springs & Wire Forms
Rowley Spring Co Inc The — Bristol

Pre-Cut Cottages
Federal Homes Corporation — Canaan

Pre-Engineered Homes
Federal Homes Corporation — Canaan

Premium Specialties
Waterbury Companies Inc — Waterbury

Preservatives—Wood, Rope, Fabric
Darworth Incorporated ("Cuprinol") ("Cellu-san") — Simsbury

Pressboard
Case & Risley Press Paper Co (genuine) — Oneco

Press Papers
Case Brothers Inc — Manchester

Presses
Farrel-Birmingham Company Inc (Hydraulic)

Presses—Power
Pneumatic Applications Co The (modernization of presses through conversion to Wichita Air Clutch operation) — Simsbury
Waterbury Farrel Foundry & Machine Co The — Waterbury

Pressure Vessels
Norwalk Tank Co Inc The (unfired to ASME Code Par U 69-70) — South Norwalk
Whitlock Manufacturing Co The — Hartford

Printing
Allied Printing Services Inc — Manchester
Bussmann Press Inc — New Haven
Case Lockwood & Brainard A Division of Connecticut Printers Inc — Hartford
Finlay Brothers — Hartford
Heminway Corporation The — **Waterbury**
Hildreth Press — Bristol
Hunter Press — Hartford
Lehman Brothers Inc — **New Haven**
Taylor & Greenough Co The — Wethersfield
T B Simonds Inc — Hartford
A D Steinbach & Sons — New Haven
The Walker-Rackliff Company — New Haven

Printing Machinery
Banthin Engineering Co (automatic) — Bridgeport
Thomas W Hall Company — Stamford

Printing Plates
ADS Inc Div CSW Plastic Types Inc — Hartford
Lockwood Sons Inc Wm H — Hartford

Printing Rollers
Chambers-Storck Company Inc The (engraved) — Norwich

Printing—Silk Screen
Ad-Craft Displays, Inc. — Bloomfield

Production Control Equipment
Ripley Company Inc — Middletown
Wassell Organization Inc — Westport

Profilers
Pratt & Whitney Co Inc — West Hartford

Projectors
Kalart Co Inc The (16mm Sound and Silent Projectors) — Plainville

Propellers—Aircraft
Hamilton Standard Div United Aircraft Corp (propellers and other aircraft equipment) — Windsor Locks

Protective Coatings
Bischoff Chemical Corporation (Peelable Plastic Coatings) — Ivoryton
Harrison Company The A S (Waxes) — South Norwalk

Publishers
O'Toole & Sons Inc The — Stamford

Pumps
Sumo Pumps Inc (Deep-well electro-submersible) — Stamford
Yale & Towne Mfg Co The — Stamford

Pumps—Small Industrial
Eastern Industries Inc — New Haven

Punches
Hoggson & Pettis Mfg Co The (ticket & cloth) 141 Brewery St — New Haven

Putty Softeners—Electrical
Fletcher Terry Co The — Box 415 Forestville

Pyrometers
Bristol Co The (recording and controlling) — Waterbury

Radiation—Finned Copper
Bush Manufacturing Co — West Hartford
G & O Manufacturing Company The — New Haven
Vulcan Radiator Co The (steel and copper) — Hartford

Radiators—Engine Cooling
G & O Manufacturing Co — New Haven

Radiographic Inspection
State Testing Laboratory — Bridgeport

Ratchet Offset Screw Driver
Chapman Co J W — Durham

Rayon Staple Fiber
Hartford Rayon Corp The — Rocky Hill

Reamers
Atrax Company The (solid carbide) — Newington
Pratt & Whitney Co Inc (All types) — West Hartford

Record Equipment
Wassell Organization Inc (filing equipment) — Westport

Recorders
Bristol Co The (automatic controllers, temperature, pressure, flow, humidity) — Waterbury

Reduction Gears
Farrel-Birmingham Company Inc — Ansonia
Snow-Nabstedt Gear Corp The — New Haven

Refractories
Howard Company — New Haven
Mullite Refractories Company The — Shelton

Refrigeration
Dunham-Bush Inc — West Hartford

Regulators
Norwalk Valve Company (for gas and air) — South Norwalk

Research & Development
Raymond Engineering Laboratories (Electro-Mechanical) — Middletown

Resistance Wire
C O Jeliff Mfg Co The (nickel chromium, copper nickel, iron chromium, aluminum) — Southport
Kanthal Corporation The — Stamford

Respirators
American Optical Company Safety Products Division — Putnam

Resuscitators
Cycle-Flo Company The — Milford

Retainers
Hartford Steel Ball Co The (bicycle & automotive) — Hartford

Rigid Plastic Sheet Material
Gilman Brothers Company The — Gilman

Riveting Machines
Grant Mfg & Machine Co The — Bridgeport
Ripley Company Inc — Middletown
H P Townsend Manufacturing Co The — Elmwood

Rivets
Clark Brothers Bolt Co — Milldale
Plume & Atwood Mfg Co The — Thomaston
Raybestos Div of Raybestos-Manhattan Inc The (brass and aluminum tubular and solid copper) — Bridgeport
Raybestos Div of Raybestos-Manhattan Inc The (iron) — Bridgeport

Rods
American Brass Company The (copper, brass, bronze) — Waterbury
Bridgeport Brass Company — Bridgeport
Bristol Brass Corp The (brass and bronze) — Bristol
Scovill Manufacturing Company (aluminum, brass, bronze, etc.) — Waterbury

Rollers—Bituminous Paving
Gabb Special Products Div E Horton & Son Company — Windsor Locks

Roller Skate Wheels
Raybestos Division of Raybestos-Manhattan Inc — Bridgeport

Roller Skates
Arms and Ammunition Div Olin Mathieson Chemical Corp — New Haven

Rolling Mills & Equipment
Farrel-Birmingham Company Inc — Ansonia
Fenn Mfg Co The — Newington
Precision Methods & Machines Inc — Waterbury
Waterbury Farrel Foundry & Machine Co The — Waterbury

Rolls
Farrel-Birmingham Company Inc (Chilled and Alloy Iron, Steel) — Ansonia

Rotary Files
Atrax Company The (carbide) — Newington

Routers
Atrax Company The (solid carbide) — Newington

Rubber—Cellular
B F Goodrich Sponge Products Division — Shelton

Rubber Chemicals
Naugatuck Chemical Division United States Rubber Co — Naugatuck
Stamford Rubber Supply Co The ("Factice" Vulcanized Vegetable Oils) — Stamford

Rubber Cutting Machinery
Black Rock Mfg Company The — Bridgeport

Rubberized Fabrics
Duro-Gloss Rubber Co The — New Haven

Rubber Footwear
Goodyear Rubber Co The — Middletown

Rubber Gloves
Seamless Rubber Company The — New Haven

Rubber—Handmade Specialties
Seamless Rubber Company The — New Haven

Rubber Latex Compounds and Dispersions
Naugatuck Chemical Division United States Rubber Co (coating, impregnating and adhesive compounds) — Naugatuck

(Advt.)

Rubber—Latex Foam
B F Goodrich Sponge Products Division Shelton

Rubber Mill Machinery
Farrel-Birmingham Company Inc Ansonia

Rubber—Molded Specialties
Airex Rubber Prod Corp Portland
Canfield Co The H O Bridgeport
Seamless Rubber Company The New Haven

Rubber Products
Airex Rubber Prod Corp Portland

Rubber Printing Plates
ADS Inc Div CSW Plastic Types Inc Hartford
Lockwood Sons Inc Wm H Hartford

Rubber Products—Mechanical
American Felt Co Glenville
Auburn Manufacturing Company The (washers, gaskets, molded parts) Middletown
Canfield Co The H O Bridgeport
Seamless Rubber Company The New Haven
Tsingris Die Cutting Corp (die cutting, gaskets) Waterbury

Rubber—Reclaimed
Naugatuck Chemical Division United States Rubber Co Naugatuck

Rubbers
Naugatuck Chemical Div U S Rubber Co (special synthetic) Naugatuck

Rubbish Burners
John P Smith Co The 423-33 Chapel St New Haven

Rust Preventives
Anderson Oil Co Inc F E Portland
Enthone Inc New Haven

Rust Removers
Enthone Inc New Haven

Saddlery
The Smith-Worthington Saddlery Co Hartford

Safety Clothing
American Optical Company Safety Products Division Putnam

Safety Fuses
Ensign-Bickford Co The (mining & detonating) Simsbury

Safety Gloves and Mittens
American Optical Company Safety Products Division Putnam

Safety Goggles
American Optical Company Safety Products Division Putnam

Safety Switches
Circuit Protective Devices Dept., General Electric Co. Plainville

Saws, Band, Metal Cutting
Capewell Manufacturing Co The Hartford

Saw Blades—Hack
Capewell Mfg Co The Hartford
Thompson & Son Co The Henry G New Haven

Saw Blades—Hack & Band
Capewell Manufacturing Company Hartford

Saw—Hole
Thompson & Son Co The Henry G New Haven

Saws, Band, Metal Cutting
Atlantic Saw Mfg Co New Haven
Thompson & Son Co The Henry G New Haven

Saws—Hole
Capewell Manufacturing Co The Hartford

Scissors
Acme Shear Company The Bridgeport

Screen Process Printing
Stifel & Kufta (complete) New Britain

Screens
Hartford Wire Works Co The (Windows, Doors and Porches) Hartford

Screw Caps
Weimann Bros Mfg Co The (small for bottles) Derby

Screw Machines
H P Townsend Mfg Company The Elmwood

Screw Machine Products
Accurate Screw Products Inc (B & S Swiss & Davenports) Southington
Apex Tool Co Inc The Bridgeport
Auto Electric Screw Machine Co Inc Bridgeport
Consolidated Industries West Cheshire
Eastern Machine Screw Corp The Truman & Barclay Sts New Haven
Fairchild Screw Products Inc Winsted
Franklin Screw Machine Co The (up to 1½" capacity) Hartford
Garthwait Mfg Co A E (up to and incl ½") Waterbury
Greist Mfg Co The (up to 1½" capacity) New Haven
Horberg Grinding Industries Inc (heat treated and ground type only) 19 Staples Street Bridgeport

Screw Machine Products (Cont.)
Humason Mfg Co The Forestville
Independent Screw Machine Products (up to an incl 1¼" capacity) Hartford
Junior Screw Machine Products Inc West Haven
Lowe Mfg Co The Wethersfield
Main Screw Machine Products (davenport & automatics exclusively) Waterbury
National Automatic Products Company The Berlin
Nelson's Screw Machine Products Plantsville
New Britain Machine Company The New Britain
New Haven Screw Machine Prods Inc (up to 1½" capacity) Milford
Newton Screw Machine Products Co Plainville
Olson Brothers Company (up to ¾" capacity) Plainville
Olson & Sons R P Southington
Plume & Atwood Mfg Co The Thomaston
Scovill Manufacturing Company Waterbury 91
United Screw Machine Co Thomaston
Waterbury Machine Tools & Products Co (Brown & Sharpe and Davenport) Waterbury

Screw Machine Tools
American Cam Company Inc (Circular Form Tools) Hartford
Pratt & Whitney Co Inc (Reamers, Taps, Dies, Blades and Knurls) West Hartford
Somma Tool Co (precision circular form tools) Waterbury

Screws
American Screw Company Willimantic
Atlantic Screw Works (wood) Hartford
Bristol Company The (socket set and socket cap screws) Waterbury
Clark Brothers Bolt Co Milldale
Holo-Krome Screw Corporation The (socket set and socket cap) West Hartford
Scovill Manufacturing Company Waterbury 91
Superior Manufacturing Co The Winsted

Screws—Socket
Allen Manufacturing Company The Hartford
Bristol Co The Waterbury
Holo-Krome Screw Corp The West Hartford

Sealing Tape Machines
Better Packages Inc Shelton

Service Entrance Equipment
Circuit Protective Devices Dept., General Electric Co. Plainville

Sewing Machines
Greist Mfg Co The (Sewing Machine attachments) 503 Blake St New Haven
Singer Manufacturing Company The (industrial) Bridgeport

Shaving Soaps
J B Williams Co The Glastonbury

Shears
Acme Shear Co The (household) Bridgeport

Sheet Metal Products
American Brass Co The (brass and copper) Waterbury
Merriam Mfg Co (security boxes, fitted tool boxes, tackle boxes, displays) Durham
Charles Parker Co (sheet metal fabricators) Meriden
Parsons Co Inc W A (fabricators) Durham
Plume & Atwood Mfg Co The Thomaston
United Manufacturing Co Division of The W L Maxson Corp Hamden

Sheet Metal Stampings
American Brass Company The Waterbury
American Buckle Co The West Haven
DooVal Tool & Mfg Inc The Naugatuck
J H Sessions & Son Bristol
Patent Button Co The Waterbury
Plume & Atwood Mfg Co The Thomaston
Scovill Manufacturing Company (aluminum, brass, bronze, copper, nickel silver, steel and other metals and alloys) Waterbury

Sheet Steel
Dolan Steel Company Inc Bridgeport

Shell Cores
Victors Brass Foundry Inc Guilford

Shell Molding
Victors Brass Foundry Inc Guilford

Shells
Scoville Manufacturing Company (aluminum, brass, bronze, copper, nickel silver—drawn, stamped—electric socket, screw) Waterbury
Wolcott Tool and Manufacturing Company Inc Waterbury

Shipment Sealers
Better Packages Inc Shelton

Showcase Lighting Equipment
Wiremold Company The Hartford

Signals
H C Cook Co The (for card files) 32 Beaver St Ansonia

Signs
Arnco Sign Co (plastic, neon, porcelain & stainless steel) Meriden
Berger Sign Co (neon electric-porcelain enamel-stainless steel) Hartford
Ad-Craft Displays, Inc. (all types, quantity only) Bloomfield

Silk Screen Process Printing
Ad-Craft Displays, Inc. Bloomfield
Norton Co R H New Haven

Silk Screen Printing
Sirocco Screen prints New Haven

Silk Screening on Metal
Ad-Craft Displays, Inc. Bloomfield
Merriam Mfg Co (Displays and Specialties, to order) Durham

Silver & Gold Plating
Donham Craft Inc (on metals & plastics) Thomaston

Simulators
Reflectone Corporation The Stamford

Sintered Metal Products
Raybestos Division of Raybestos-Manhattan Inc Bridgeport

Sizing and Finishing Compounds
American Cyanamid Company Waterbury

Slide Fasteners
G E Prentice Mfg Co The Kensington
North & Judd Manufacturing Co New Britain
Scovill Manufacturing Company (GRIPPER zippers) Waterbury

Smoke Stacks
Bigelow Company The (steel) New Haven
Norwalk Tank Co The South Norwalk

Snap Fasteners
Scovill Manufacturing Company (GRIPPER snap fasteners) Waterbury

Soap
J B Williams Co The (industrial soaps, toilet soaps, shaving soaps) Glastonbury

Special Machinery
Banthin Engineering Company (complete and/or parts) Bridgeport
Boesch Mfg Co Inc Danbury
Black Rock Mfg Company The Bridgeport
Farrel-Birmingham Company Inc Ansonia
Federal Machine & Tool Co Bristol
Fenn Mfg Co The Newington
Hartford Special Machinery Co The Hartford
H P Townsend Mfg Company The Elmwood
National Sheradizing & Machine Co (mandrels & stock shells for rubber industry) Hartford
Standish Associates Inc Fairfield
Swan Tool & Machine Co The Hartford
Tucker Machine Co North Haven

Special Parts
Fenn Mfg Co The Newington
Greist Mfg Co The (small machines, especially precision stampings) New Haven
J H Sessions & Son Bristol

Spinnings
Gray Manufacturing Company The Hartford

Spline Milling Machines
Townsend Mfg Co The H P Elmwood

Sponge Rubber
B F Goodrich Sponge Products Division Shelton

Spotwelding
Spotwelders Inc (aluminum, steel, magnesium, titanium & alloys) Stratford

Spray Painting Equipment and Supplies
Lea Manufacturing Co The Waterbury

Spring Coiling Machines
Torrington Manufacturing Co The Torrington

Spring Presses
Townsend Mfg Co The H P Elmwood

Spring Units
Owen Silent Spring Division American Chain & Cable Company Inc Bridgeport

Spring Washers
Barnes Co The Wallace Div Associated Spring Corp Bristol

Springs
Central Spring Co (Torsion and Double Torsion) Terryville

Springs—Coil & Flat
Barnes Co The Wallace Div Associated Spring Corp Bristol
Barrett Co William L Bristol
Bristol Spring Manufacturing Co Plainville
Foursome Manufacturing Co Bristol
Humason Mfg Co The Forestville
Newcomb Spring Corp The Southington
New England Spring Manufacturing Company Unionville
Peck Spring Co The Plainville

Springs—Flat
Barnes Co The Wallace Div Associated Spring Corp Bristol
Bristol Spring Manufacturing Co Plainville
Foursome Manufacturing Co Bristol
Humason Mfg Co The Forestville
Peck Spring Co Plainville
(Advt.)

Springs—Wire
Barnes Co The Wallace Div Associated Spring Corp Bristol
Bernston Co., J. W. Plainville
Bristol Spring Manufacturing Co Plainville
Colonial Spring Corporation The Hartford
Connecticut Spring Corporation The (compression, extension, torsion) Hartford
Foursome Manufacturing Co Bristol
Humason Mfg Co The Forestville
D R Templeman Co (coil and torsion) Plainville
Newcomb Spring Corp The Southington
Peck Spring Co Plainville

Springs, Wire & Flat
Peck Spring Co Plainville

Sprinklers
Scovill Manufacturing Company (GREEN SPOT) Waterbury

Stamped Metal Products
American Brass Company The Waterbury

Stampings
Donahue Mfg Co Inc Watertown
DooVal Tool & Mfg Inc The Naugatuck
Foursome Manufacturing Co Bristol
Joma Tool Co Wolcott
Plume & Atwood Mfg Co The (small) Thomaston
Saybrook Manufacturing Inc Old Saybrook
Scovill Manufacturing Company aluminum, brass, bronze, copper, nickel silver, steel and other metals and alloys—automotive, electrical, radio, etc.—deep drawn, enameled) Waterbury
Stanley Pressed Metal New Britain

Stampings—Small
Acme Shear Co The Bridgeport
Barnes Co The Wallace Div Associated Spring Corp Bristol
Barrett Co William L Bristol
Bristol Spring Manufacturing Co Plainville
Greist Manufacturing Co The New Haven
Humason Mfg Co The Forestville

Stamps
Hoggson & Pettis Mfg Co The (steel) 141 Brewery St New Haven
Parker-Hartford Corporation (steel) Hartford

Stationery Specialties
American Brass Company The Waterbury

Steel—Alloy and Stainless Bars
Northeastern Steel Corporation Bridgeport

Steel Castings
Hartford Electric Steel Corp The (Carbon, low alloy and stainless steel and Ductile iron) Hartford
Malleable Iron Fittings Co Branford
Nutmeg Crucible Steel Co Branford

Steel—Cold Finished Bars
Northeastern Steel Corporation Bridgeport

Steel—Cold Rolled Spring
Barnes Co The Willace Div Associated Spring Corp Bristol
Detroit Steel Corporation Hamden

Steel—Cold Rolled Stainless
Ulbrich Stainless Steels Wallingford
Wallingford Steel Company Wallingford

Steel—Cold Rolled Strip
Detroit Steel Corporation Hamden
Stanley Works The New Britain

Steel—Cold Rolled Strip and Sheets
Detroit Steel Corporation New Haven
Wallingford Steel Company Wallingford

Steel Goods
Merriam Mfg Co (sheets products to order)

Steel—Ground Flat Stock
Thompson & Son Co The Henry G New Haven

Steel—Hot Roll Bars
Northeastern Steel Corporation Bridgeport

Steel Rolling Rules
Waterbury Lock & Specialty Co The Milford

Steel Strapping
Stanley Works The New Britain

Stereotypes
ADS Inc Div CSW Plastic Types Inc Hartford
New Haven Electrotype Div Electrographic Corp New Haven

Stop Clocks, Electric
H C Thompson Clock Co The Bristol

Storage Batteries
R A E Storage Battery Mfg Co Glastonbury

Straps, Leather
Auburn Manufacturing Company The (textile, industrial, skate, carriage) Middletown

Strip Steel
Dolan Steel Company Inc Bridgeport

Structural Mouldings
Leed Co The H A Hamden

Studio Couches
Waterbury Mattress Co Waterbury

Super Refractories
Mullite Refractories Company The Shelton

Surface Metal Raceway & Fittings
Wiremold Company The Hartford

Surgical Dressings
Acme Cotton Products Co Inc East Killingly
Seamless Rubber Company The New Haven

Surgical Rubber Goods
Seamless Rubber Company The New Haven

Swaging Machinery
Fenn Mfg Co The Newington

Switchboards
Distribution Assemblies Department, General Electric Co Plainville

Switchboards Wire and Cables
Rockbestos Products Corp (asbestos insulated) New Haven

Switches—Electric
General Electric Company Bridgeport

Synthetic Fabrics
American Felt Co Glenville

Tabulating Equipment—Manual
Denominator Company Inc Woodbury
Veeder-Root Incorporated Hartford

Tanks
Bigelow Company The (steel) New Haven
Comco Inc Div of Enthone Inc (steel, alloy and lined) New Haven
Connecticut Welders Inc (steel, alloy & lined) Wallingford
Norwalk Tank Co The South Norwalk
Rolock Inc (Alloy) Fairfield
Storts Welding Company (steel and alloy) Meriden

Tanks—Stainless Steel
Alsop Engineering Corporation Milldale

Tap Extractors
Walton Company The West Hartford

Tape
Russell Mfg Co The (woven cotton and glass insulating) Middletown

Tapes—Industrial Pressure Sensitive
Seamless Rubber Company The New Haven

Taps
Hanson-Whitney Company The Hartford
Pratt & Whitney Co Inc West Hartford

Tarred Lines
Brownell & Co Inc Moodus

Telemetering Instruments
Bristol Co The Waterbury

Television—Radio
Junior Screw Machine Products Inc West Haven

Testers-Insulation
McNeal J D New Haven

Testers—Insulation Wire & Cable
Davis Electric Company Wallingford

Testers—Nondestructive, Ultrasonic
Sperry Products Inc Danbury

Textile Printing Gums
Polymer Industries Inc Springdale

Textile Processors
American Dyeing Corporation (rayon, acetate, nylon, dacron, other synthetics) Rockville

Thermometers
Bristol Co The (recording and automatic control) Waterbury
Manning Maxwell & Moore Inc Stratford

Thin Gauge Metals
Plume & Atwood Mfg Co The Thomaston
Thinsheet Metals Co The (plain or tinned in rolls) Waterbury

Thread
American Thread Co The Willimantic
Belding Heminway Corticelli Putnam
Max Pollack & Co Inc Groton and Willimantic
Wm Johl Manufacturing Co Mystic

Thread Chasers
Geometric Tool Division, Greenfield Tap & Die Corp New Haven

Thread Gages
Hanson-Whitney Company The Hartford
Pratt & Whitney Co Inc West Hartford

Thread Milling Machines
Hanson-Whitney Company The Hartford
Pratt & Whitney Co Inc West Hartford

Thread Rolling
Bland Burner Co The Thread Products Div Hartford

Thread Rolling Machinery
Hartford Special Machinery Co The Hartford
Mettler Machine Tool, Inc. New Haven

Threading Machines
Grant Mfg & Machine Co The (double end automatic) Bridgeport

Timers, Interval
A W Haydon Co The Waterbury
H C Thompson Clock Co The Bristol
Cramer Controls Corporation The Centerbrook
Rhodes Inc M H Hartford

Timing Devices
B & N Tool & Engineering Co (development and model work) Oakville
Cramer Controls Corporation The Centerbrook
A W Haydon Co The Waterbury
Lux Clock Manufacturing Company Waterbury
Rhodes Inc M H Hartford
Seth Thomas Clocks Thomaston
United States Time Corporation The Waterbury

Timing Devices & Time Switches
A W Haydon Co The Waterbury
Lux Clock Manufacturing Company Waterbury
M H Rhodes Inc Hartford

Tinning
Thinsheet Metals Co The (non-ferrous metals in rolls) Waterbury
Wilcox-Crittenden Div North & Judd Mfg Co Middletown

Tires
Armstrong Rubber Company The West Haven

Tokens
Scovill Manufacturing Company (bus, street car and subway fare) Waterbury

Tool Bits
Thompson & Son Co The Henry G New Haven

Tool Chests
Vanderman Manufacturing Co The Willimantic

Tool Hardening
Commercial Metal Treating Co Bridgeport

Tools
B & N Tool & Engineering Co (dies, jigs, fixtures, sub-press and progressive) Oakville
Hoggson & Pettis Mfg Co The (rubber workers) 141 Brewery St New Haven

Tools & Dies
Metropolitan Tool & Die Hartford
Moore Special Tool Co Bridgeport
Swan Tool & Machine Co The Hartford

Tools, Dies & Fixtures
Greist Mfg Co The New Haven

Tools, Dies, Jigs & Fixtures
Joma Tool Co Wolcott
Lyons Tool & Die (modelwork, jig boring) Meriden
Otterbein Co J A Middletown
Telke Tool & Die Mfg Co New Britain

Tools, Fixtures, Gauges
Fredericks Tool Co J F West Hartford

Toroidal Winding Machines
Boesch Mfg Co Inc Danbury

Totalizers
Reflectone Corporation The Stamford

Toys
Geo S Scott Mfg Co The Wallingford
Gilbert Co The A C New Haven
Gong Bell Co The East Hampton
N N Hill Brass Co The East Hampton
Waterbury Companies Inc Waterbury

Trucks—Commercial
Metropolitan Body Company (International Harvester truck chassis and "Metro" bodies) Bridgeport

Trucks—Industial
George P Clark Co Windsor Locks

Truck—Lift
Excelsior Hardware Co The Stamford
George P Clark Co Windsor Locks

Trucks—Skid Platforms
Excelsior Hardware Co The (lift) Stamford

Tube Bending
Donahue Mfg Co Inc Watertown

Tube Clips
H C Cook Co The (for collapsible tubes) 32 Beaver St Ansonia
Weimann Bros Mfg Co The (for collapsible tubes) Derby

Tube Fittings
Scovill Manufacturing Company (UNIFLARE flared tube and LOXIT compression tube) Waterbury

Tubers
Standard Machinery Co The (tubers for both rubber and plastic industries) Mystic

Tubes—Collapsible Metal
Sheffield Tube Corp The New London (Advt.)

IT'S MADE IN CONNECTICUT

Tubing
American Brass Co The (brass and copper) Waterbury
Bridgeport Brass Company (brass and copper) Bridgeport
G & O Manufacturing Co (finned) New Haven
Scovill Manufacturing Company (Brass and Copper) Waterbury 91
Wallingford Steel Co The (stainless and super metals) Wallingford

Tubing—Flexible Metallic
American Brass Co Metal Hose Branch Waterbury

Tubing—Heat Exchanger
American Brass Company The Waterbury
Scovill Manufacturing Company Waterbury 91

Tumbling Barrels and Accessories
Wheeler Company The G E New Haven

Tumbling Equipment & Supplies
Esbec Barrel Finishing Corp Byram

Tumbling Service
Esbec Barrel Finishing Corp Meriden

Turntables
Macton Machinery Company Inc (industrial & display) Stamford

Typewriters
Royal Typewriter Co Inc Hartford
Underwood Corporation Hartford

Typewriters—Portable
Royal Typewriter Company Inc Hartford
Underwood Corporation Hartford

Typewriter Ribbons and Supplies
Royal Typewriter Company Inc Hartford
Underwood Corporation Hartford and Bridgeport

Ultrasonic Processing Equipment
General Ultrasonics Co The Hartford

Underclearer Rolls
Sonoco Products Co (Climax-Lowell Div) Mystic

Vacuum Bottles and Containers
American Thermos Products Co Norwich

Vacuum Cleaners
Electrolux Corporation Old Greenwich
Spencer Turbine Co The Hartford

Valves—Automobile Tire
Bridgeport Brass Company Bridgeport

Valves
Norwalk Valve Company (sensitive check valves) South Norwalk

Valves—Aircraft
Bridgeport Thermostat Div Robertshaw—Fulton Controls Co Milford

Valves—Radiator Air
Bridgeport Brass Company Bridgeport

Valves—Relief & Control
Beaton & Caldwell Mfg Co New Britain

Valves—Safety & Relief
Manning Maxwell & Moore Inc Stratford

Vanity Boxes
Bridgeport Metal Goods Mfg Co Bridgeport
Plume & Atwood Manufacturing Co Thomaston
Scovill Manufacturing Company Waterbury

Varnishes
Staminite Corp The New Haven

Velvets
American Velvet Co (owned and operated by A Wimpfheimer & Bros Inc) Stonington
Leiss Velvet Mfg Co Inc The Willimantic

Venetian Blinds
Findell Manufacturing Company Manchester
Jennings Company The S Barry New Haven
New England Shade & Blind Co Inc Durham

Ventilating Systems
Colonial Blower Company Plainville

Vertical Shapers
Pratt & Whitney Co Inc West Hartford

Vibrators—Pneumatic
Branford Co The (industrial) New Haven

Vinyl Extrusion & Moulding Compounds
Electronic Rubber Co Stamford

Vises
Charles Parker Co The Meriden
Fenn Manufacturing Company The (Quick-Action Vises) Newington
Vanderman Manufacturing Co The (Combination Bench Pipe) Willimantic

Wall Paper
Stamford Wall Paper Co Inc Stamford

Washers
American Felt Co (felt) Glenville
Auburn Manufacturing Company The (all materials) Middletown
Clark Brothers Bolt Co Milldale
Humphrey Fabricating Corp Unionville
Plume & Atwood Mfg Co The (brass & copper) Thomaston
J H Rosenbeck Inc Torrington
Saling Manufacturing Company (made to order) Unionville
Tsingris Die Cutting Corp. (all materials) Waterbury

Washers—Felt
American Felt Co Glenville
Chas W House & Sons Inc (Mills & Cutting Plant) Unionville

Watches
E Ingraham Co The Bristol
United States Time Corporation The Waterbury

Water Deionizers
Penfield Mfg Co Meriden

Water Heaters
Whitlock Manufacturing Co The (instantaneous & Storage) Hartford

Water Heaters—Electric
Bauer & Company Inc Hartford

Water Heaters—Gas or Kerosene
Holyoke Heater Corp of Conn Inc Hartford

Waxes
Harrison Company The A S (and other protective coatings) South Norwalk

Waxes—Floor
Fuller Brush Co The Hartford

Webbing
Russell Mfg Co The (crash barrier for airplanes) Middletown

Wedges
Saling Manufacturing Company (hammer & axe) Unionville

Welding
Aircraft Welding & Mfg Co Inc (aluminum, stainless steel, magnesium) Hartford
Connecticut Welders Inc (fabrication & repairs) Wallingford
Farrel-Birmingham Company Inc Ansonia
G E Wheeler Company (Fabrication of Steel & Non-Ferrous Metals) New Haven
Industrial Welding Company (Equipment Manufacturers—Steel Fabricators) Hartford

Welding—Lead
Connecticut Welders Inc (tanks & coils) Wallingford
Storts Welding Company (tanks and fabrication) Meriden

Welding Rods
American Brass Company The Waterbury
Bridgeport Brass Company Bridgeport
Bristol Brass Co The (brass & bronze) Bristol

Wells
Church Co The Stephen B Seymour

Wheels—Industrial
George P Clark Co Windsor Locks

Wicks
American Felt Co Glenville
Auburn Manufacturing Company The (felt, asbestos) Middletown
Holyoke Heater Corp of Conn Inc Hartford

Wiffle Ball
Wiffle Ball Inc The New Haven

Window & Door Guards
Hartford Wire Works Co The Hartford
Smith Co The John P New Haven

Window Shades
New England Shade & Blind Co Inc Durham

Wiping Cloths
Federal Textile Corporation New Haven

Wire
American Brass Company The Waterbury
Atlantic Wire Co The (steel) Branford
Bridgeport Brass Company (brass and silicon bronze) Bridgeport
Bristol Brass Corp The (brass & bronze) Bristol
Driscoll Wire Co The (steel) Shelton
Hudson Wire Co Winsted Div (insulated & enameled magnet) Winsted
Platt Bros & Co The (zinc wire) P O Box 1030 Waterbury
Plume & Atwood Mfg Co The (brass, bronze, nickel silver) Thomaston
Scovill Manufacturing Company (Brass, Bronze and Nickel Silver) Waterbury 91

Wire and Cable
Continental Wire Corp (for industrial and military applications) Wallingford
General Electric Company (for residential, commercial and industrial applications) Bridgeport
Rockbestos Products Corporation (all asbestos, mining, shipboard and appliance applications) New Haven

Wire Arches & Trellises
Hartford Wire Works Co The Hartford
John P Smith Co The 423-33 Chapel St New Haven

Wire Baskets
Wiretex Mfg Inc (Industrial, for acid, heat, treating and degreasing) Bridgeport

Wire Cloth
Hartford Wire Works Co The Hartford
C O Jeliff Mfg Co The (all metal, all meshes) Southport
Pequot Wire Cloth Co Inc Norwalk
Rolock Inc (Alloy) Fairfield
Smith Co The John P New Haven

Wire Dipping Baskets
Hartford Wire Works Co The Hartford
John P Smith Co The 423-33 Chapel St New Haven

Wire Drawing Dies
Waterbury Wire Die Co The Waterbury

Wire Forming Machinery
Torrington Manufacturing Company The Torrington

Wire Formings
G E Prentice Mfg Co The Kensington
Master Engineering Company West Cheshire
North & Judd Manufacturing Co New Britain
Peck Spring Co Plainville
Turner & Seymour Manufacturing Co The Torrington
Verplex Company The Essex

Wire Forms
Barnes Co The Wallace Div Associated Spring Corp Bristol
Bristol Spring Manufacturing Co Plainville
Central Spring Co (short run orders) Terryville
Colonial Spring Corporation The Hartford
Connecticut Spring Corporation The Hartford
Foursome Manufacturing Co Bristol
Gemco Manufacturing Co Inc Southington
Humason Mfg Co The Forestville
New England Spring Mfg Co Unionville
Peck Spring Co Plainville
Templeman Co D R Plainville
Terryville Manufacturing Co Terryville

Wire Goods
American Buckle Co The (overall trimmings) West Haven
Patent Button Co The Waterbury
Scovill Manufacturing Company (To Order) Waterbury 91

Wire Partitions
Hartford Wire Works Co The Hartford
John P Smith Co The 423-33 Chapel St New Haven

Wire Products
Humason Mfg Co The Forestville
Peck Spring Co Plainville
Plume & Atwood Mfg Co The (to order) Thomaston

Wire Reels
Mettler Machine Tool, Inc. New Haven
A H Nilson Mach Co The Bridgeport

Wire Rings
American Buckle Co The (pan handles and tinners' trimmings) West Haven
Humason Mfg Co The Forestville
Peck Spring Co Plainville
Templeman Co D R Plainville

Wire—Specialties
Andrew B Hendryx Co The New Haven

Wire Straightening and Cutting Machinery
Mettler Machine Tool, Inc. New Haven

Wiring Devices
Harvey Hubbell Inc Bridgeport

Wood Scrapers
Fletcher-Terry Co The Forestville

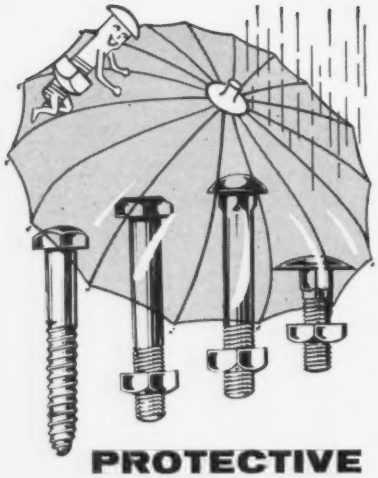
Woodwork
C H Dresser & Sons Inc (Mfg all kinds of woodwork) Hartford
Hartford Builders Finish Co Hartford

Woven Felts—Wool
Chas W House & Sons Inc (Mills & Cutting Plant) Unionville

Yarns
Aldon Spinning Mills Corporation The (fine-woolen and specialty) Talcottville
Ensign-Bickford Co The (jute-carpet) Simsbury
Hartford Spinning Incorporated (Wollen, knitting and weaving yarns) Unionville

Zinc
Platt Bros & Co The (ribbon, strip and wire) P O Box 1030 Waterbury

Zinc Castings
Newton-New Haven Co Inc 688 Third Ave West Haven
(Advt.)



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CLARK BROS. BOLT CO.
MILLDALE, CONN.

Public Relations

(Continued from page 63)

now at work and of the unchangeable character of certain basic laws."

How to do this? Your Association looks forward to making its contribution through the news media and the Speakers Committee. An industry association, however, is further removed from an individual than the place where he works. If management will inform employees concerning the rising costs of material, equipment, services and labor and point out the basic reasons why these costs are rising, it will be economic education with real impact. Why? Because this is information that the man knows is tied directly to his wages and the end product of what his work creates.

As an example of what we have in mind, the Dictaphone Corporation chairman of the board, C. K. Woodbridge, recently said at Service Award ceremonies in the plant, "According to the U. S. Census Bureau, our country's population is already at the 170 million mark. In addition, this figure increases by 4 million babies every year."

"Increased productivity is the only means by which we will be able to provide the needs of all these people, yet many people choose to ignore this basic economic fact. They talk, instead, about reducing the work week to only 35 hours."

Mr. Woodbridge then cautioned the group about the dangers of increasing inflation. He charged excessive government spending for "fringe benefits" as being one of the major causes of inflation.

In discussing ways of bringing about a reduction in government spending, Mr. Woodbridge explained that "it is practically impossible to get government officials to cut expenses of operating the government."

"Only when you and I sit down and discuss the subject with our families across the dinner table, or we can persuade local civic, church or fraternal groups to take action, will reduced government spending be achieved."

But what about this in terms of dollars and cents for a company? Will this kind of economic education affect favorably the expense caused by labor turnover, wastage, poor productivity, and other problems where the employee attitude is a major factor? The answer comes not from an ivory tower. Big, small and medium companies have testified to the effectiveness of this kind of employee communication as giving a genuine return in dollars and cents to the management that uses it.

Advertising Index

Ætna Life Affiliated Companies	Inside Back Cover
Allen, Russell & Allen	35 & 54
Alpha Molykote Corp.	38
American Felt Company	36
Anderson-Nichols & Co.	33
Auburn Manufacturing Co.	34
Avery & Saul	46
Ballard Oil Company	Outside Back Cover
Barnes Company, Wallace	70
Barney's of Hartford	49
Bavier, Bulger & McCullough	36
Carlson, Inc., Ernest F.	66
Chase Brass & Copper Co.	35
Champlin Box Co.	60
Church Co., The Stephen B.	69
Clark Bros. Bolt Co.	84
Colonial Blower Company	69
Connecticut Bank & Trust Co.	31
Connecticut Kellering Co.	63
Connecticut Medical Service	45
Connecticut Printers, Inc.	3
Connecticut Utility Companies	64
CSW Plastic Types, Inc.	60
Detroit Steel Corporation	62
DooVal Tool & Mfg., Inc.	60
DeWyk & Co., Inc., L. Heres	35
Dolge Co., C. B.	60
Dowd, Wyllie & Olson, Inc.	58
Eastern Elevator Co., Inc.	53
Eastern Express, Inc.	39
Elmwood-Cody Industries, Inc.	44
Enthone, Inc.	50
Frasse & Co., Inc., Peter A.	56
Fuller Brush Company	55
Griffin Co., Inc., John F.	53
Gross & Associates, Inc., Julian	44
Hall Co., Inc., Thomas W.	44
Hartford National Bank and Trust Co.	37
Hartford Special Machinery Co.	65
Howard Company, The	65
Humphrey Fabricating Corp.	58
Jones Co., T. A. D.	4
Liberty Mutual Insurance Company	32
Mercer & Dunbar	35
Merchants Chemical Company, Inc.	52
Mills, Inc., H. J.	40
Morris Co., The Robert E.	65
Morrissey & Cheney	65
Mt. Vernon Die Casting Corp.	49
Newton Company, The	35
Nutmeg Crucible Steel Co.	65
Pan-Atlantic Steamship Corp.	68
Pearce Real Estate Co.	34
Plocar Company, John J.	68
Pratt & Whitney Co., Inc.	48
Pratt, Wilbur S.	40
Rockbestos Products Corporation	59
Robertson Paper Box Company, Inc.	47
Rourke-Eno Paper Co.	71
Seymour Smith & Son, Inc.	38
Sessions & Son, J. H.	38
Sherman Transfer Co., Roger	51
Shuttleworth, Inc.	57
Silent Glow Oil Burner Corp.	61
Smith & Winchester Mfg. Co.	40
Souther Engineering Co.	44
Southern New England Telephone Co.	Inside Front Cover
Sprague Electrical Supplies, Inc.	44
Stanley Works, Steel Division	67
Stoddard Engraving Co., The	63
Suburban Propane Gas Corporation	43
Swan Tool & Machine Co.	44
Travelers Insurance Co.	42
Veeder-Root, Inc.	41
Walters Business Forms	67
Wiremold Company	57
Wirth, John C. J.	40
Wittstein, Jack	35
Wyatt, Inc.	2

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A firm which demands such exacting quality in its own products, expects the same kind of quality service from its insurance carrier. That's why Johnson & Johnson relies on Ætna Casualty — a company which understands not only the *business* values involved, but the *human* ones as well.

Ætna Casualty has the nationwide facilities to maintain close, personal contact with even the most widespread operations. Ætna's underwriting plans are designed to reflect — in lower insurance costs — highly effective accident prevention and loss control services. Ætna's prompt, fair claim handling is an important factor, not only in reducing insurance costs, but also in improving employee morale.

What Ætna Casualty has done for firms like Johnson & Johnson, it can do for *your* company as well. Why not consult your agent or broker about Ætna Casualty . . . soon?

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Hartford 15, Connecticut

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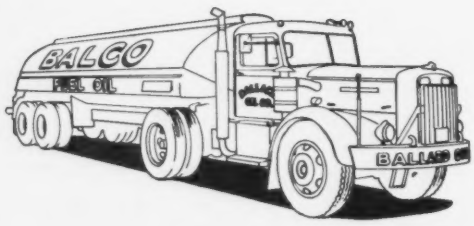

Write or call, Hartford JAckson 9-3341, for the complete Story on Balco #4 Oil and Ballard "super-service!"

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